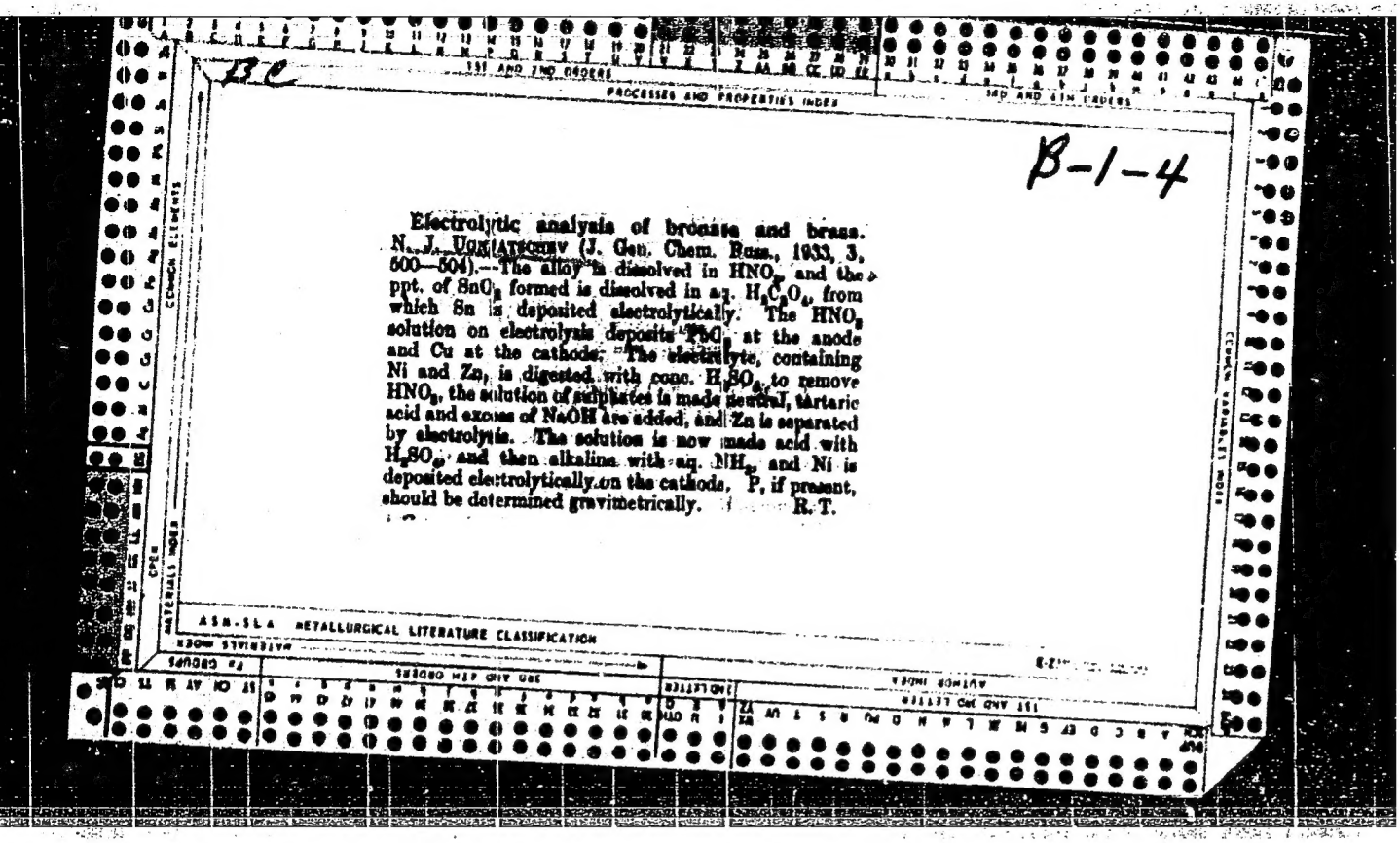
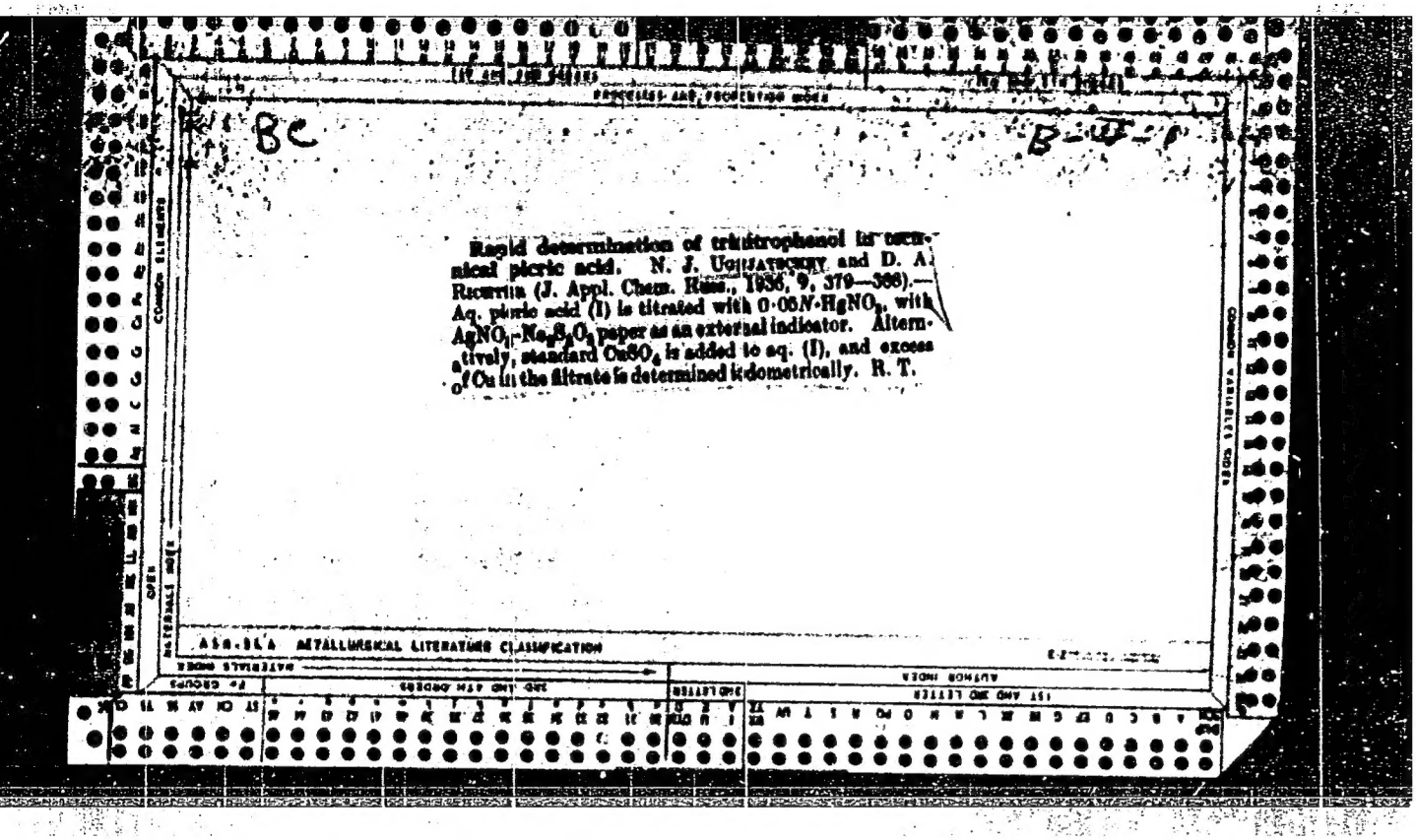


B-1-4

Electrolytic analysis of bronze and brass. N. J. Usatenko (J. Gen. Chem. Russ., 1933, 3, 500—504).—The alloy is dissolved in HNO_3 and the ppt. of SnO_2 formed is dissolved in aq. $H_2C_2O_4$, from which Sn is deposited electrolytically. The HNO_3 solution on electrolysis deposits PbO_2 at the anode and Cu at the cathode. The electrolyte, containing Ni and Zn, is digested with conc. H_2SO_4 to remove HNO_3, the solution of sulphates is made neutral, tartaric acid and excess of NaOH are added, and Zn is separated by electrolysis. The solution is now made acid with H_2SO_4 and then alkaline with aq. NH_3, and Ni is deposited electrolytically on the cathode. P, if present, should be determined gravimetrically. R. T.



Rapid determination of trinitrophenol in technical picric acid. N. J. USTIATENCHEV and D. A. RICHTER (J. Appl. Chem. Russ., 1936, 9, 379—386).—Aq. picric acid (I) is titrated with 0·05*N*-$HgNO_3$, with $AgNO_3$–$Na_2S_2O_3$ paper as an external indicator. Alternatively, standard $CuSO_4$ is added to aq. (I), and excess of Cu in the filtrate is determined iodometrically. R. T.

1ST AND 2ND ORDERS | 3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

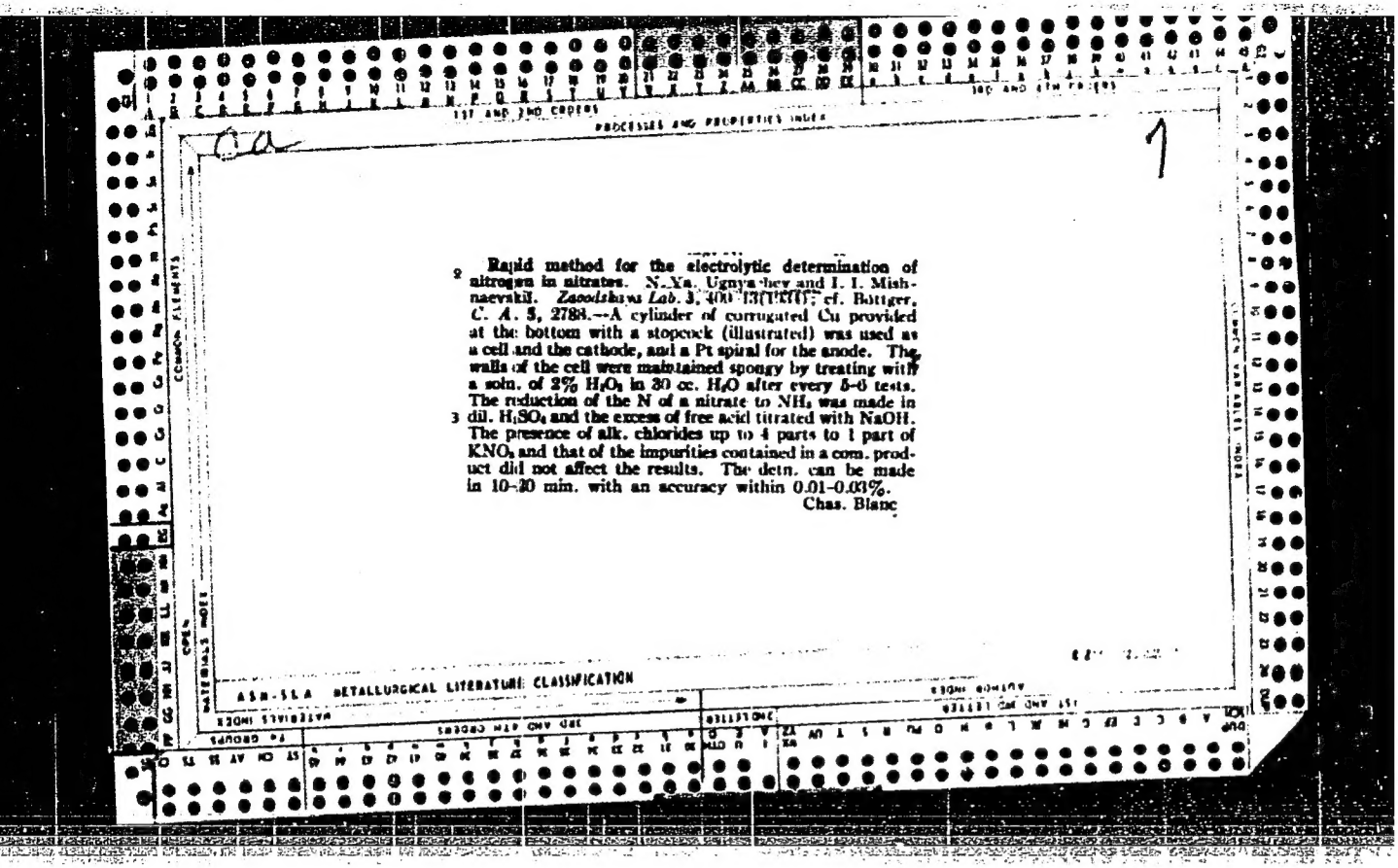
BC

B-I-8

Rapid determination of fluorine in apatites. N. I. [illegible] and E. A. Bilenko (Ukrain. Chem. J., 1937, 12, 36—41).—0·5—1 g. of apatite is digested at 100° in 25 c.c. of saturated aq. borax and 10 c.c. of conc. HCl, 100—150 c.c. of P_2O_5 pptg. reagent [200 c.c. of $(NH_4)_2MoO_4$, 100 c.c. of conc. HCl, and 200 c.c. of 0·6% 8-hydroxyquinoline in 0·1% HCl] are added, and the mixture is heated at 100° for 30 min., cooled, diluted to 200 c.c., and filtered. 20 c.c. of conc. HCl and 2 c.c. of 0·03% Na alizarinsulphonate are added to 10 c.c. of filtrate, and the mixture is maintained at 0° for 5 min. and titrated with 2% $Zr(NO_3)_4$. B. T.

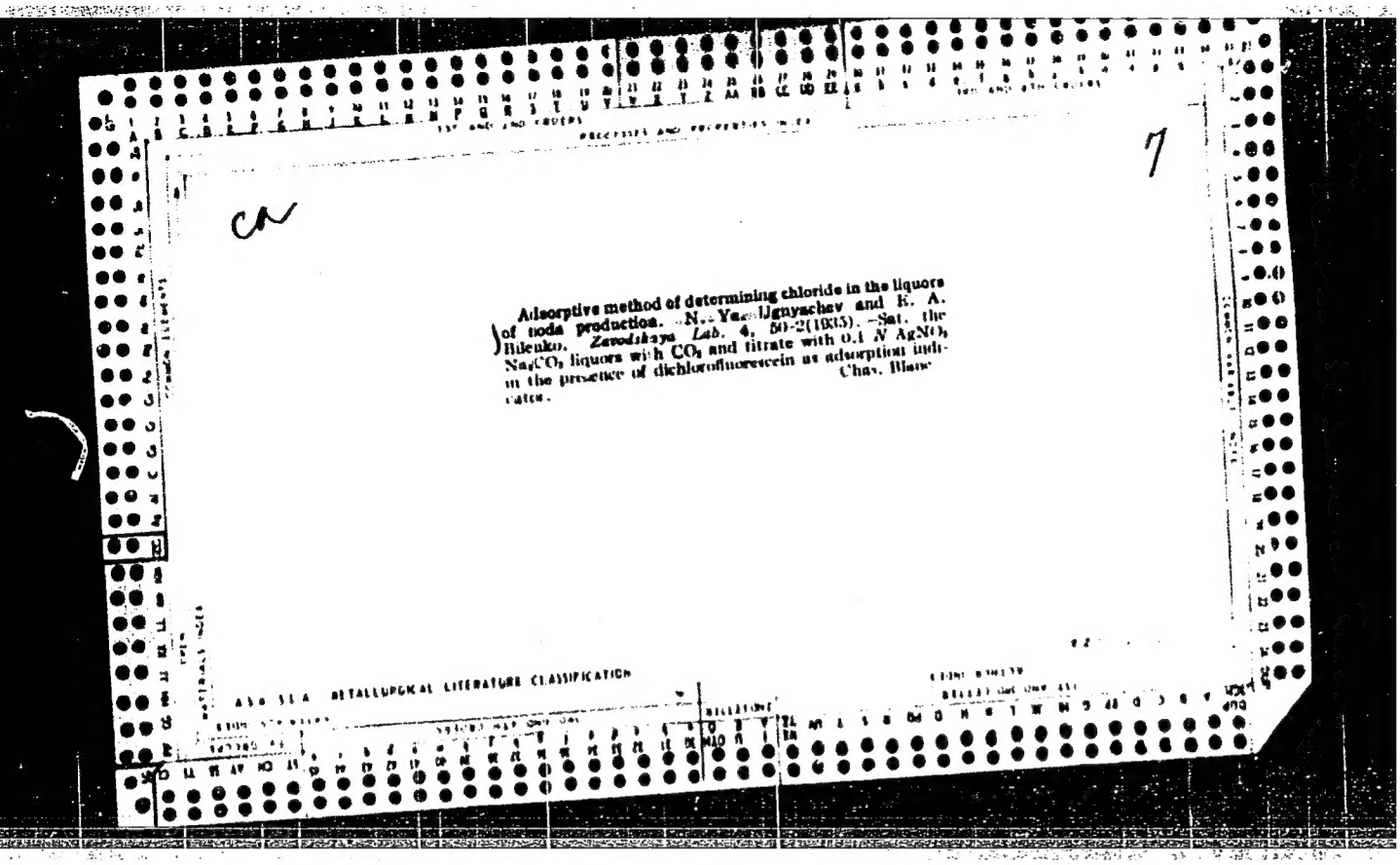
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX | AUTHOR INDEX



Rapid method for the electrolytic determination of nitrogen in nitrates. N. Ya. Ugnya-shev and I. I. Mishnaevskii. *Zavodskaya Lab.* 3, 400 [1934]; cf. Bottger, *C. A.* **5**, 2788.—A cylinder of corrugated Cu provided at the bottom with a stopcock (illustrated) was used as a cell and the cathode, and a Pt spiral for the anode. The walls of the cell were maintained spongy by treating with a soln. of 2% H_2O_2 in 30 cc. H_2O after every 5–6 tests. The reduction of the N of a nitrate to NH_3 was made in dil. H_2SO_4 and the excess of free acid titrated with NaOH. The presence of alk. chlorides up to 4 parts to 1 part of KNO_3 and that of the impurities contained in a com. product did not affect the results. The detn. can be made in 10–20 min. with an accuracy within 0.01–0.03%.

Chas. Blanc

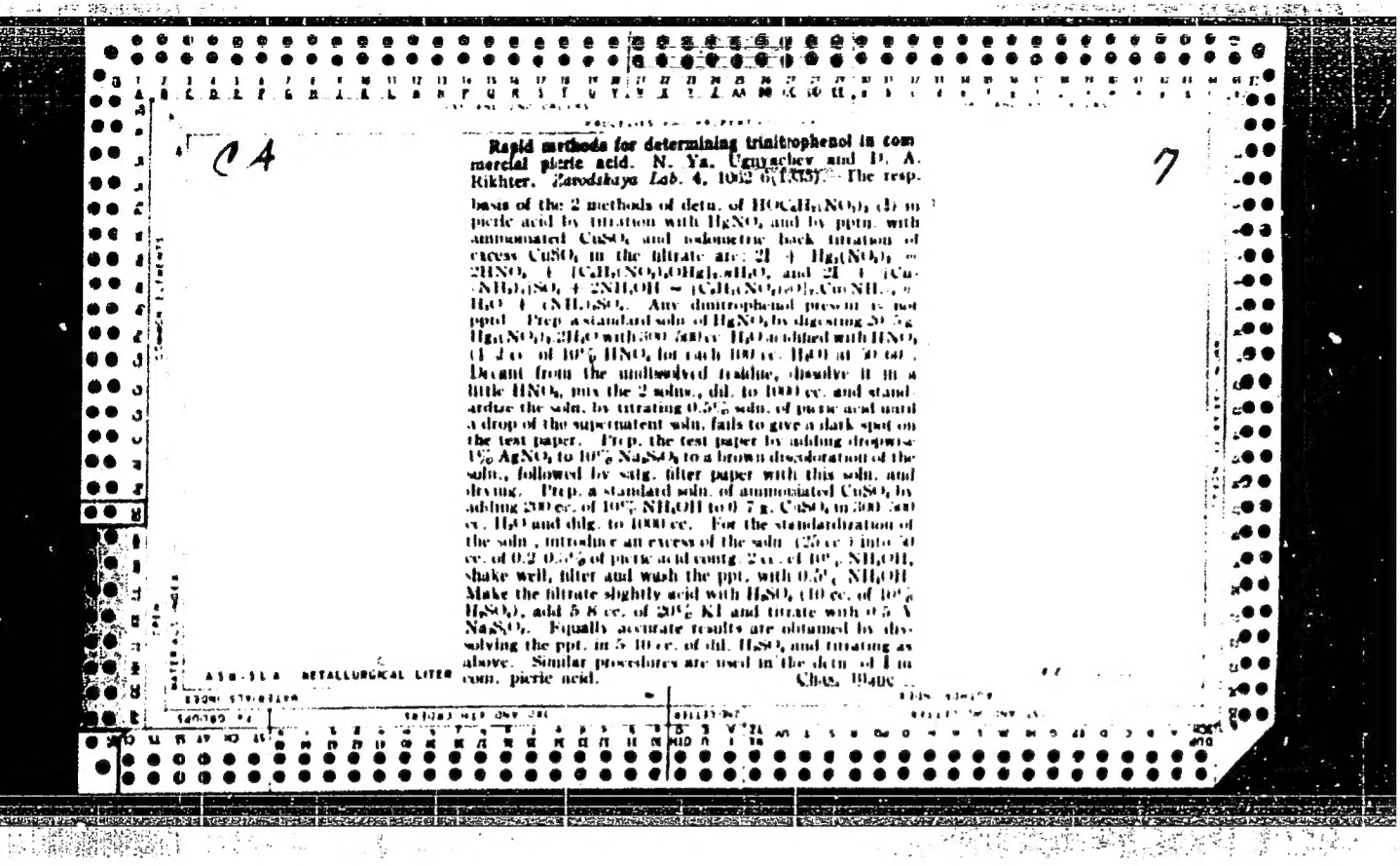


CA

7

Adsorptive method of determining chloride in the liquors of soda production. N. Ye. Ignyashev and E. A. Bilenko. *Zavodskaya Lab.* 4, 50-2(1935).—Sat. the Na_2CO_3 liquors with CO_2 and titrate with 0.1 *N* $AgNO_3$ in the presence of dichlorofluorescein as adsorption indicator. Chas. Blanc

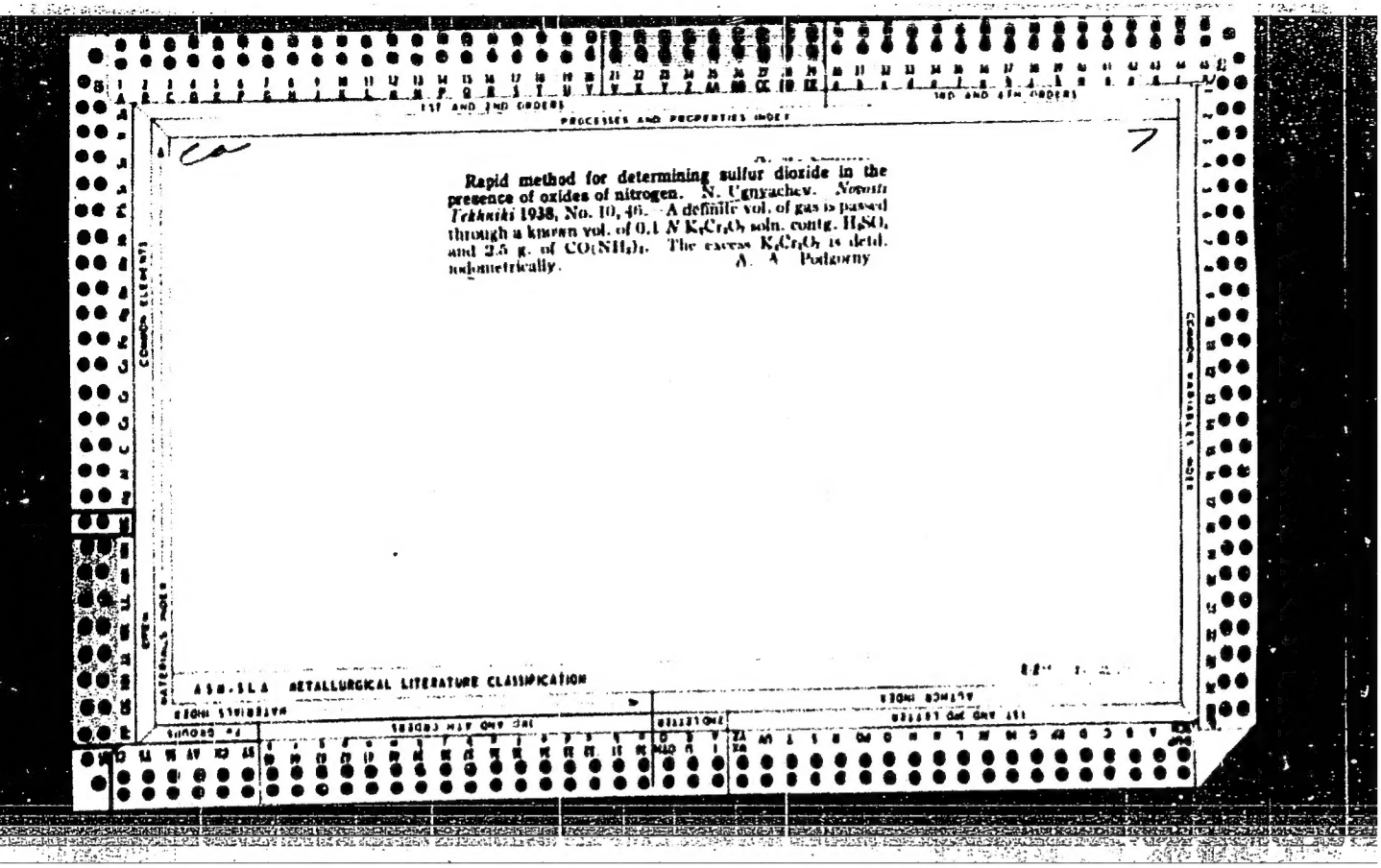
ASTIA METALLURGICAL LITERATURE CLASSIFICATION



CA

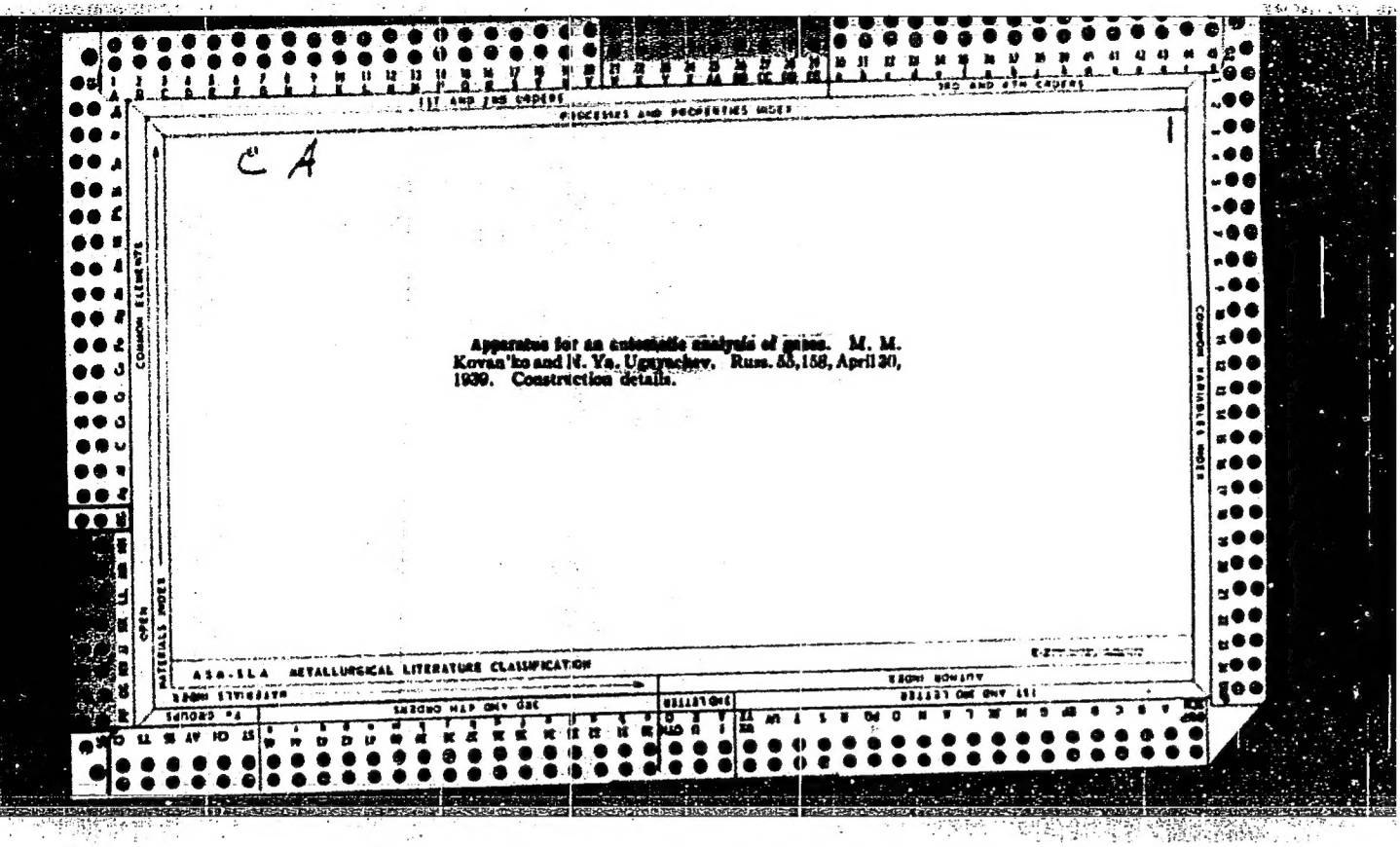
7

Rapid methods for determining trinitrophenol in commercial picric acid. N. Ya. Ugnyachev and D. A. Rikhter. *Zavodskaya Lab.* 4, 1062-6 (1935).—The respective bases of the 2 methods of detn. of $HOC_6H_2(NO_2)_3$ (I) in picric acid by titration with $HgNO_3$ and by pptn. with ammoniated $CuSO_4$ and iodometric back titration of excess $CuSO_4$ in the filtrate are: $2I + Hg(NO_3)_2 = 2HNO_3 + [C_6H_2(NO_2)_3O]_2Hg.xH_2O$, and $2I + [Cu(NH_3)_4]SO_4 + 2NH_4OH = [C_6H_2(NO_2)_3O]_2Cu(NH_4)_2 + H_2O + (NH_4)_2SO_4$. Any dinitrophenol present is not ppted. Prep a standard soln of $HgNO_3$ by digesting 50 g. $Hg(NO_3)_2.2H_2O$ with 500 cc. H_2O acidified with HNO_3 (1 cc. of 10% HNO_3 for each 100 cc. H_2O) at 70–80°. Decant from the undissolved residue, dissolve it in a little HNO_3, mix the 2 solns., dil. to 1000 cc. and standardize the soln. by titrating 0.5% soln. of picric acid until a drop of the supernatant soln. fails to give a dark spot on the test paper. Prep. the test paper by adding dropwise 1% $AgNO_3$ to 10% $Na_2S_2O_3$ to a brown discoloration of the soln., followed by satg. filter paper with this soln. and drying. Prep. a standard soln. of ammoniated $CuSO_4$ by adding 200 cc. of 10% NH_4OH to 0.7 g. $CuSO_4$ in 300 cc. H_2O and dilg. to 1000 cc. For the standardization of the soln., introduce an excess of the soln. (25 cc.) into 50 cc. of 0.2–0.5% of picric acid contg. 2 cc. of 10% NH_4OH, shake well, filter and wash the ppt. with 0.5% NH_4OH. Make the filtrate slightly acid with H_2SO_4 (10 cc. of 10% H_2SO_4), add 5–8 cc. of 20% KI and titrate with 0.5 N $Na_2S_2O_3$. Equally accurate results are obtained by dissolving the ppt. in 5–10 cc. of dil. H_2SO_4 and titrating as above. Similar procedures are used in the detn. of I in com. picric acid. Chas. Blanc



Rapid method for determining sulfur dioxide in the presence of oxides of nitrogen. N. Ugryachev. *Novosti Tekhniki* 1938, No. 10, 46. A definite vol. of gas is passed through a known vol. of 0.1 *N* $K_2Cr_2O_7$ soln. contg. H_2SO_4 and 2.5 g. of $CO(NH_2)_2$. The excess $K_2Cr_2O_7$ is detd. iodometrically. A. A. Podgorny

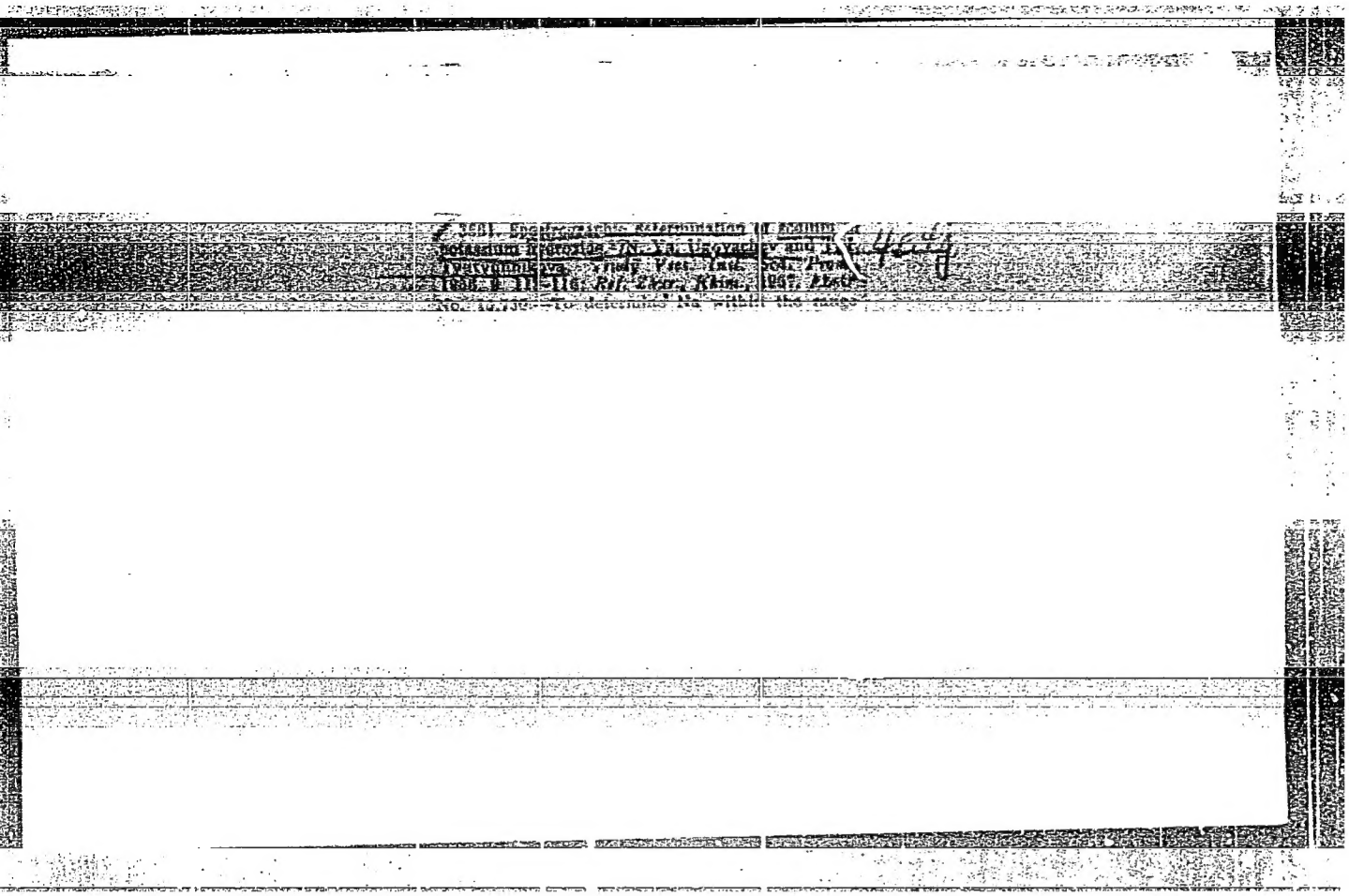
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



UCHYACHEV, N. YA.

Uchyachev, N. Ya. - "The work o the Analytical Laboratory" Trudy Vsesoyuz. in-ta sodovoy prom-sti, Vol. 7, 1949, p. 24-30, -Bibliog: p. 17.

SO. U-4631, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949



UGNYACHEV, N.Ya., kand.tekhn.nauk; OLEYNIK, T.V.

Separate determination of sulfur dioxide and nitrogen oxides in the manufacture of sulfuric acid by the chamber process. Khim.prom. no.8:577-580 Ag '61. (MIRA 14:8)
(Sulfur dioxide) (Nitrogen oxide) (Sulfuric acid)

UGNYACHEV, M.Ya. [Uhniachev, M.IA.], kand. khim. nauk; OLYNIK, T.V. [Olinyk, T.V.]

Colorimetric method for determining chromium in potassium and mother liquors. Khim. prom. [Ukr.] no.3:71-72 Jl-S '63. (MIRA 17:8)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii.

UGOCSAI, Gyula

ANDRASSY, Laszlo, Dr.; UGOCSAI, Gyula, Dr.; KOVACS, Kalman, Dr.

Papillary carcinoma of kidney pelvis in young girl. Orv. hetil. 98 no.33:911-913 18 Aug 57.

1. A Szegedi Orvostudomanyi Egyetem, I. sz. Belgyogyaszati Klinikajanak (igazgota: Hetenyi Geza dr. akademikus) es Sebeszeti Osztalyanak (vezeto: Petri Gabor dr. egyet. tanar) kozlemenye.

(KIDNEY PELVIS, neoplasms
papilloma, case report (Hun))

PROCESSES AND PROPERTIES INDEX

AMR

E. Castricity [illegible]

4692. **Ugodchikov, A. G., Determination of stresses arising from forced-fit of several round disks in a plate bounded by a special curve** (in Russian), *Doklady Akad. Nauk SSSR* (N.S.) 77, 2, 213–216, Mar. 1951.

With reference to several previous Russian papers, author ex[illegible] generally the conditions on the boundary of a plate and [illegible] of round disks pressed in the plate. Functions [illegible] of stresses are given in general form. Results of a [illegible] of one and two disks pressed in a plate with curved boundary free from stresses are indicated.

Z. Bažant, Czechoslovakia

Nov. 51

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

UGODCHIKOV, A. G.

"Determining the Stresses When Several Circular Disks are Impressed in a Plate Bounded by a Pascal Spiral"
Inzhenernyy Sb., Vol 17, 1953, pp203-206

The author gives an expression for the analytic functions in whose derivation the problem under discussion is applied. This supplements the work of N. I Muskhelishvili and D. I. Sherman. An expression is also given for the components of stress. (RZhMekh, No 1, 1955)

SO: Sum. 492, 12 May 55

UGODCHIKOV, A-G.

2

Ugodčikov, A. G. Electromodelling of the problem of conformal mapping of a circle on a simply connected region given beforehand. Ukrain. Mat. Ž. 7 (1955), 221–230. (Russian) MS

I-F/W

1

UGODCHIKOV, A.G.

UGODCHIKOV, A.G.

Electric analog for the conformal transformation of a circular ring onto a specified doubly-connected domain. Ukr. mat.zhur.7 no.3:305-312 '55. (MLRA 9:2)
(Electromechanical analogies) (Conformal mapping)

UGODCHIKOV, A.G.

Torsion calculation of prismatic isotropic beams with simply connected cross sections. Prykl. mekh. 2 no.1:67-72 '56. (MLRA 10:2)

1. Gor'kovskiy inzhenerno-budivel'niy institut.
(Girders) (Torsion)

Ugodchikov, A.G.

PHASE I BOOK EXPLOITATION SOV/3472

Akademiya nauk SSSR. Institut mashinovedeniya

Problemy prochnosti v mashinostroyenii, vyp. 4 (Strength Problems in Mechanical Engineering, No. 4) Moscow, Izd-vo AN SSSR, 1959. 122 p. Errata slip inserted. 2,300 copies printed.

Ed.: N.I. Prigorovskiy, Doctor of Technical Sciences, Professor; Ed. of Publishing House: G.B. Gorshkov; Tech. Ed.: Yu.V. Rylina; Editorial Board: S.V. Serensen, Academician, USSR (Chairman), F.M. Dimentberg, Doctor of Technical Sciences, V.O. Kononenko, Doctor of Technical Sciences, S.V. Pinegin, Doctor of Technical Sciences, Professor, D.N. Reshetov, Doctor of Technical Sciences, Professor, G.V. Uzhik, Doctor of Technical Sciences, Professor, and R.M. Shneyderovich, Candidate of Technical Sciences.

PURPOSE: This collection of articles is intended for scientists and engineers concerned with plastic deformation.

COVERAGE: This collection of 6 articles by different authors gives the results of investigations carried out by the Institut mashino-

Card 1/3

Strength Problems (Cont.)

vedeniya AN SSSR (Institute of Machine Science, Academy of Sciences, USSR). The foreword was written by N.I. Prigorovskiy, Professor, Doctor of Technical Sciences, editor of the collection. The collection of articles is the second of a series and discusses the problem of tensile and compressive stresses, elasticity, deformations under loading, and the calculation and analysis of stresses. The authors emphasize advanced methods of analysis and report on experimental results. References follow each article.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

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Card 3/3

UGODCHIKOV, A.G. (Gor'kiy)

Torsion of hollow prismatic rods. Prikl.mekh. 2 no.2:217-223 '56.
(MLRA 9:10)

1.Gor'kovs'kiy Inzhenerno-budivel'niy institut.
(Torsion)

Ugodchikov, A.G.

124-11-13505

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr 11, p 165 (USSR)

AUTHOR: Ugodchikov, A. G.

TITLE: On the Calculation of Fitting Stresses in Certain Types of Press-Fitted Connections (O raschete posadochnykh napryazheniy v nekotorykh tipakh pressovannykh soyedineniy)

PERIODICAL: Tr. Gor'kovsk. inzh.-stroit. in-ta, 1956, Nr 25, pp 28-43

ABSTRACT: Fitting Stresses are determined by the methods of two-dimensional elasticity theory, utilizing the work of D. I. Sherman (Dokl. AN SSSR, 1940, 27, Nr 9). The press-fitted parts are assumed to be solid cylindrical washers and the fitting pressure is assumed to be uniformly distributed along their circumference. The outer contours of the parts are assumed to be defined by curves characterized by the property that, within the area circumscribed by such curves, a circle with unit radius may be conformally represented by means of a polynomial expression of the n-th power. The problem, then, is reduced to the solution of a system of linear equations. The results of numerical calculations are adduced, and approximate formulas are provided.

(L. I. Balabukh)

Card 1/1

UGODCHIKOV, Andrey Grigor'yevich (Gorkiy Engr-Constr Inst) awarded sci degree of Doc Tech Sci for the 26 Dec 57 defense of dissertation: "Solution of a plane problem of the theory of elasticity with the aid of electrically-moulded conformation transformation [elektromodeliro-vaniya konformnogo preobrazovaniya]" at the Council, Inst of Constr Mechanics, AS, UkSSR; Prot No 14, 31 May 58.

(BMVO, 11-58,21)

UGODCHIKOV, A.G. (Gor'kiy).

On the calculation of setting stresses in machine parts [with summaries in Russian and English]. Prykl.mekh. 3 no.2:202-208 '57. (MIRA 10:9)

1. Gor'kovskiy inzhenerno-budivel'niy institut.
(Strains and stresses)

UGODCHIKOV, A.G.; SEREBRENNIKOVA, I.I. (Gor'kiy)

Electric modelling of the conformal mapping of the exterior of a circle on the exterior of a given curve. [In Ukrainian with summaries in Russian and English] Prykl.mekh.3 no.3:269-276 '57. (MIRA 10:12)

1. Gor'kovs'kiy inzhenerno-budivel'niy institut.
(Conformal mapping--Electromechanical analogies)

UGODCHIKOV, A G.

21-4-6/24

AUTHOR: Uhodchykov, A.H. (In Russian - Ugodchikov, A.G.)

TITLE: On the Solution of the Plane Problem for a Composite Isotropic Medium by means of Electrical Modelling of the Conformal Transformation (Do rozv'yazannya ploskoi zadachi dlya skladovoho izotropnoho seredovyshcha za dopomohoyu elektromodelyuvannya konformnoho peretvorennya)

PERIODICAL: Dopovidi Akademii Nauk Ukrains'koi RSR, 1957, #4, pp 343-347 (USSR)

ABSTRACT: The author proposes a method for the numerical solution of the problem on the strained state of a composite isotropic medium, using the Muskhelishvili (1) method and the experimental-analytical method of conformal transformations (4).

The conformal mapping function in the form of a polynomial is constructed with the aid of electric analogs. The function represents an approximate conformal transformation of the unit circle to the given region. This makes it possible to obtain then by the Muskhelishvili method the rigorous solution of this elasticity problem for a region which is very close to that

Card 1/2

TITLE: On the Solution of the Plane Problem for a Composite Isotropic Medium by means of Electrical Modelling of the Conformal Transformation (Do rozv'yazannya ploskoi zadachi dlya skladovoho izotropnoho seredovyshcha za dopomohoyu elektromodelyuvannya konformnoho peretvorennya)

given by the conditions of the problem.

The article contains 2 figures.
There are 4 references all Slavic.

INSTITUTION: Gor'kiy Engineering-Construction Institute

PRESENTED BY Savin, H.M. (Russian equivalent - Savin, G.N.), Member of the Ukrainian Academy of Sciences.

SUBMITTED: 13 August 1956

AVAILABLE: At the Library of Congress.

Card 2/2

VAYNBERG, D.V. (Kiyev); UGODCHIKOV, A.G. [Uhodchykov, A.H] (Kiyev)

Bending stresses in tightly assembled thin plates. Prykl. mekh. 4 no.4:396-400 '58. (MIRA 11:12)

1. Institut stroitel'noy mekhaniki AN USSR.
(Elastic plates and shells)

UGODCHIKOV, A. G.

28(1) PHASE I BOOK EXPLOITATION SOV/2775

Akademiya nauk Ukrayins'koyi RSR. Instytut matematyky

Zastosuvannya metodu elektrohidrodynamichnykh analohiy do rozv"yazannya deyakykh tekhnichnykh zadach (Application of the Method of Electrohydrodynamic Analogy to the Solution of Various Engineering Problems) Kyyiv, Vyd-vo AN URSR, 1959. 160 p. 1,000 copies printed.

Ed. of Publishing House: T.K. Remennik; Tech. Ed.: O.O. Matviychuk; Editorial Board: P.F. Fil'chakov (Resp. Ed.), V.M. Ostapenko (Resp. Secretary), Yu.V. Blahoveshchens'kyy, Y.B. Pohrebys'kyy, and V.E. Shamans'kyy.

PURPOSE: This book is intended for scientific workers, engineers, Aspirants and students.

COVERAGE: This book is a collection of articles on the application of the electrohydrodynamic analogy method to the . ution of various engineering problems. Among the topics discussed is the modelling of certain technical problems on resistance paper by the electrohydrodynamic analogy method. Special attention is given to the study of various problems of filtration, in both homogeneous and nonhomogeneous ground, problems of plane bending, heat engineering problems, modelling electro-osmotic waterlevel fall, and the conformal mapping problem. Problems of the physical and technical properties of resistance paper and the accuracy of the electrohydrodynamic analogy method are studied and the new, more universal model of the EGDA integrator is described. All the articles end with summaries in Russian and English.

TABLE OF CONTENTS:

Udodchikov, A.G.
UGOD

PHASE I BOOK EXPLOITATION SOV/4000

SOV/12-M-27

Akademiya nauk SSSR. Institut mekhaniki

Inzhenernyy sbornik, t. 27 (Engineering Collection, Vol. 27) Moscow, Izd-vo AN SSSR, 1960. 210 p. 2,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye tekhnicheskikh nauk.

Resp. Ed.: A. A. Il'yushin; Ed.: V. M. Akhundov; Ed. of Publishing House: V.M. Akhundov; Tech. Ed.: A.P. Guseva.

PURPOSE: This book is intended for engineers, applied physicists, and applied mathematicians.

COVERAGE: The book consists of 24 articles on such problems as wing theory, supersonic flow, theory of shells, stability, plasticity and elasticity, the bending of thin plates and shells, and various aspects of applied mathematics. No personalities are mentioned. References accompany most of the articles.

AVAILABLE: Library of Congress

UGODCHIKOV, A.G.

Concentration of fit stresses. Probl.proch.v mashinostr. no.4: 100-110 '59. (MIRA 13:5)
(Strains and stresses)

16(1) SOV/41-11-1-11/12

AUTHOR: Ugodchikov, A.G. (Gor'kiy)

TITLE: On Trigonometric Interpolation of Conformal Mapping Functions

PERIODICAL: Ukrainskiy matematicheskiy zhurnal, 1959, Vol 11, Nr 1, pp 111-113 (USSR)

ABSTRACT: Let S be a domain of the z-plane bounded by L. Let L be Jordanian, i.e. let the angle of inclination $\varphi(s)$ of the tangent of L be a continuous function of the arc s. Let the function $z = \omega(\zeta)$ map $|\zeta| < 1$ conformally onto S, where $\zeta = 0$ in $z = 0$ and a given direction in $\zeta = 0$ goes over into a given direction in $z = 0$. Let $z = \omega_n(\zeta)$ be an interpolation polynomial of n-th degree, the real part of which in $\zeta = \zeta_j = e^{i\frac{2\pi}{m}j}$ ($j=1,\ldots, m=2n$) is identical with the real part of $z = \omega(\zeta)$. Theorem: If $|\varphi(s) - \varphi(s')| \leq K|s-s'|$, then $\{\omega_n(\zeta)\}$ converges uniformly to $\omega(\zeta)$ in $|\zeta| \leq 1$.

Card 1/2

On Trigonometric Interpolation of Conformal Mapping Functions

SOV/41-11-1-11/12

Theorem: If $\varphi(s)$ is absolutely continuous and $\varphi'(s) \in L^p$, $p > 1$, then $\{\omega_n(\zeta)\}$ converges to $\omega(\zeta)$ uniformly in $|\zeta| \leq 1$.

There are 10 references, 7 of which are Soviet, 1 Polish, 1 German, and 1 American.

SUBMITTED: April 30, 1957

Card 2/2

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S/144/60/000/011/001/008
E031/E255

9.7000

AUTHORS: Ugodchikov, A. G., Doctor of Technical Sciences and Krylov, A. Ya., Post-graduate Student

TITLE: The Electrical Simulation of the Conformal Transformation of Semi-infinite Domains

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika, 1960, No. 11, pp. 31-35

TEXT: The problem frequently arises of establishing a correspondence between the points of the unit circle and the points of the boundary of some semi-infinite domain S. To do this it is convenient to transform the domain S with boundary L_o into an enclosed simply-connected domain S_1 with boundary L_1 by an inversion. It then remains to find the transformation between S_1 and the unit circle. The establishment of a correspondence between points on the boundary of the circle and those of L_1, and the construction of a polynomial giving the conformal mapping of the circle on to a domain S_1' which is very close to the domain S_1, can be achieved with the aid of electrical simulation (Ref. 2). However, the function effecting the mapping of the unit circle on to S' (which is very close to S) can be simplified by the

Card 1/2

The Electrical Simulation of the Conformal Transformation of Semi-infinite Domains

observation that in two-dimensional problems in the theory of elasticity (where the problem under discussion arises most frequently), the boundary L_0 assumes the particular shape that the ends which tend to infinity do so in directions parallel to the real axis. Thus the transformation consists of the sum of a term of the form $C_{-1}/(1 + \zeta)$ and a power series in ζ (ζ is the complex variable in the plane of the unit circle). The coefficients of the power series are obtained by putting $\zeta = e^{i\theta}$, expressing the coefficients as $\alpha_k + i\beta_k$, and separating the real and imaginary parts. The results of a simple application of the theory are given. There are 2 figures and 4 Soviet references.

ASSOCIATION: Kafedra stroitel'noy mekhaniki, Gor'kovskiy inzhenerno-stroitel'nyy institut
(Department of Construction Mechanics, Gor'kiy Construction Engineering Institute)

SUBMITTED: September 19, 1960

Uhodchykov, A.H.

24.4200

26755
S/021/60/000/011/003/009
D204/D302

AUTHOR: Uhodchykov, A.H.

TITLE: On solving the first fundamental problem of the theory of elasticity in a doubly-connected region

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 11, 1960, 1480 - 1484

TEXT: It is assumed that in the plane $z = x + iy$ the region S is filled with an isotropic elastic medium, where S is a curvilinear ring bounded by curves L_0 (the outer boundary) and L_1 (the inner boundary). The origin is taken on L_1 and a function $z = \omega(\zeta)$ is sought of the polynomial form

$$z = \omega(\zeta) = \sum_{j=1}^{n} C_j \zeta^j + \sum_{j=1}^{m} C_{-j} \zeta^{-j} . \qquad (1)$$

Card 1/4

On solving the first fundamental ...

which effects a conformal transformation of the annulus $\rho_1 \leq |\zeta| \leq 1$ (outer boundary γ_0 and inner boundary γ_1) onto the region S. It is known that the solution of the first fundamental problem of the theory of elasticity for a doubly-connected region leads to determining functions $\varphi(\zeta)$ and $\psi(\zeta)$ which are analytic in the region $\rho_1 \leq |\zeta| \leq 1$, and which satisfy

$$\varphi(\sigma_0) + \frac{\omega(\sigma_0)}{\overline{\omega'(\sigma_0)}}\overline{\varphi'(\sigma_0)} + \overline{\psi(\sigma_0)} = f_0(\sigma_0) = i\int_0^s (X_n + iY_n)\,ds + C_0 \text{ on } \gamma_0, \qquad (2)$$

and

$$\varphi(\sigma_1) + \frac{\omega(\sigma_1)}{\overline{\omega'(\sigma_1)}}\overline{\varphi'(\sigma_1)} + \overline{\psi(\sigma_1)} = f_1(\sigma_1) = i\int_0^s (X_n + iY_n)\,ds + C_1 \text{ on } \gamma_1, \qquad (3)$$

where X_n and Y_n are components of external stress on L_0 and L_1, $\sigma_0 = 1e^{i\theta}$, $\sigma_1 = \rho_1 e^{i\theta}$ are the boundary values of the complex va-

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On solving the first fundamental ...

riable ζ, C_0 and C_1 are complex constants one of which may be arbitrarily chosen. It may be assumed without loss of generality that the principal vector and principal moment of the external forces on each contour equals zero, and that the right-hand sides of (2) and (3) may be written as complex Fourier series

$$f_0(\sigma_0) = A_0 + \sum_{m=1}^{\infty} (A_m \sigma_0^m + A_{-m} \sigma_0^{-m}), \tag{4}$$

and

$$f_1(\sigma_1) = B_0 + \sum_{m=1}^{\infty} (B_m \sigma_1^m + B_{-m} \sigma_1^{-m}). \tag{5}$$

$$\frac{1}{\zeta}\overline{\omega'}\left(\frac{1}{\zeta}\right)\left[\varphi(\zeta) - \varphi(\rho_1^2\zeta)\right] + \frac{1}{\zeta}\overline{\varphi'}\left(\frac{1}{\zeta}\right)\left[\omega(\zeta) - \omega(\rho_1^2\zeta)\right] =$$

$$= \frac{1}{\zeta}\overline{\omega'}\left(\frac{1}{\zeta}\right)\left[\sum_{m=1}^{\infty}(A_m - B_m\rho_1^{2m})\zeta^m + \sum_{m=1}^{\infty}(A_{-m} - B_{-m}\rho_1^{-2m})\zeta^{-m}\right]. \tag{16}$$

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is obtained. Equating the coefficients of each power of ζ in (16) gives two infinite systems of linear algebraic equations, which together with previously stated equations solve the first fundamental problem of elasticity in a doubly-connected region. In a concrete example, where the required accuracy of the solution is known, it is possible to use a finite number N of terms of the series for $\varphi(\zeta)$. The solution will be unique if Im $a_1 = 0$ (where a_k, $k = 1, 2 \ldots \infty$ are the coefficients). The method described may also be applied to the second fundamental problem of the plane theory of elasticity and displacement for a doubly-connected region, where on one contour the stress is given and on the other the displacement. There are 1 figure, 1 table, and 2 Soviet-bloc references.

ASSOCIATION: Hor'kivs'kyy inzhenerno-budivel'nyy instytut (Gor'kiy Institute of Civil Engineering)

PRESENTED: by H.M. Savin, Academician of the AS UkrSSR

SUBMITTED: November 17, 1959

Card 4/4

UGODCHIKOV, A.G. (Gor'kiy)

Determining stresses due to pressing into a plate some circular washers with variable tightness. Inzh.sbor. 27: 157-161 '60. (MIRA 13:6)
(Strains and stresses)

UGODCHIKOV, A.G.; KRYLOV, A.Ya.

Electric simulati[illegible] presentation of semi-infinite regions. Izv. [illegible] [illegible] mekh. 3 no.11:31-35 '60. (MIRA 14:2)

(Elasticity) (Electromechanical analogies)

UGODCHIKOV, A.G. [Uhodchykov, A.H.] (Gor'kiy)

A case of analogy in investigating stress concentration around holes. Prykl.mekh. 6 no.4:429-434 '60. (MIRA 13:11)

1. Gor'kovskiy inzhenerno-stroitel'nyy institut.
(Strains and stresses)

UGODCHIKOV, A. G.

25345

S/021/61/000/007/002/011
D205/D306

244200

AUTHOR: Uhodchykov, A.H.

TITLE: On solving fundamental boundary problems of bending of a thin plate if the region which it occupies is double connected

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR, Dopovidi, no. 7, 1961, 864 - 867

TEXT: It is supposed that the middle plane of the plate coincides with the plane $z = x + iy$ and the region S occupied by the plate is double connected and limited by smooth curves L_0 (external boundary) and L_1 (inside boundary). The origin of coordinates within L_1 is chosen and it is supposed also that one knows the function

$$z = \omega(\zeta) = \sum_{l=1}^{n} C_l \zeta^l + \sum_{l=1}^{m} C_{-l} \zeta^{-l}, \qquad (1)$$

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On solving fundamental ::.

which is a polynomial and realizes the conformal representation of a circular ring $\rho_1 \leqslant |\zeta| \leqslant 1$ (with outside boundary γ_0 and inside boundary γ) on the given region S occupied by the plate. It is known that the principal difficulty in solving the boundary problems consists in finding the general solution - a biharmonic function w; in the present case this is equivalent to determining two functions $\varphi(\zeta)$ and $\psi(\zeta)$ which are analytic in the ring $\rho_1 \leqslant |\zeta| \leqslant 1$.

It is also assumed - without restricting the generality of the case - that the principal vector and the principal moment of force on L_0 and L_1 are equal to 0, then these functions will be regular inside the ring $\rho_1 \leqslant |\zeta| \leqslant 1$ and must satisfy the boundary conditions:

$$\eta_0\varphi(\sigma_0)+\frac{\omega(\sigma_0)}{\overline{\omega'(\sigma_0)}}\overline{\varphi'(\sigma_0)}+\overline{\psi(\sigma_0)}=f_0(\sigma_0)+iC_0\omega(\sigma_0)+C_0' \text{ on } \gamma_0 \qquad (2)$$

$$\eta_1\varphi(\sigma_1)+\frac{\omega(\sigma_1)}{\overline{\omega'(\sigma_1)}}\overline{\varphi'(\sigma_1)}+\overline{\psi(\sigma_1)}=f_1(\sigma_1)+iC_1\omega(\sigma_1)+C_1' \text{ on } \gamma_1 \qquad (3)$$

Card 2/7

On solving fundamental ...

The values of the coefficients η_0, η_1 of the real constants C_0, C_1 and of the complex constants C_0', C_1' as well as the meaning and value of the functions $f_0(\sigma_0)$ and $f_1(\sigma_1)$ will depend here on the boundary conditions given on L_0 and L_1 and on the type of the boundary problem which is being studied (see Table). In this table, notations introduced in G.N. Savin's book (Ref. 1: Kontsentratsiya napryazheniy okolo otverstiy, Gostekhizdat, 1951) are used: m(s) are bending moments on L_0 and L_1. The author finally obtains $f(s) = \int_0^s p(s)\,ds$ where p(s) are bending forces on the same boundaries, and $\eta_* = -\frac{3+\nu}{1-\nu}$, ν being Poisson's coefficient. The systems of

$$\sum_{k=1}^{\infty} a_k(\eta_0 - \eta_1\varrho_1^{2k})(k-\nu)\bar{C}_{k-\nu} + \sum_{k=1}^{\infty} k\bar{a}_k C_{k+\nu}(1-\varrho_1^{2(k+\nu)}) - \qquad (16)$$

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On solving fundamental ...

$$-\sum_{k=1}^{\infty} k\bar{a}_{-k}C_{\nu-k}(1-Q_1^{2(\nu-k)})-\sum_{k=1}^{\nu} a_{-k}(\eta_0-\eta_1Q_1^{-2k})(k+\nu)\,\bar{C}_{-(k+\nu)}-$$

$$-lC_0\left[\sum_{k=1}^{n} C_k(k-\nu)\,\bar{C}_{k-\nu}-\sum_{k=1}^{m} C_{-k}(k+\nu)\,\bar{C}_{-(k+\nu)}\right]-N_0\nu\bar{C}_{-\nu}= \qquad (16)$$

$$=\sum_{m=1}^{\alpha,\beta}(A_m-B_mQ_1^{2m})(m-\nu)\,\bar{C}_{m-\nu}-\sum_{m=1}^{\alpha,\beta}(A_{-m}-B_{-m}Q_1^{-2m})(\nu+m)\,\bar{C}_{-(\nu+m)};$$

$$(\nu=0,1,\ldots) \qquad (16)$$

$$\sum_{k=1}^{\infty} a_k(\eta_0-\eta_1Q_1^{2k})(k+\nu)\,\bar{C}_{k+\nu}+\sum_{k=1}^{\infty} k\bar{a}_kC_{k-\nu}(1-Q_1^{2(k-\nu)})-$$

$$-\sum_{k=1}^{\nu} k\bar{a}_{-k}C_{-(k+\nu)}(1-Q_1^{-2(k+\nu)})+\sum_{k=1}^{\nu} a_{-k}(\eta_0-\eta_1Q_1^{-2k})(\nu-k)\,\bar{C}_{\nu-k}- \qquad (17)$$

$$-lC_0\left[\sum_{k=1}^{m} C_{-k}(\nu-k)\,\bar{C}_{\nu-k}+\sum_{k=1}^{n} C_k(k+\nu)\,\bar{C}_{k+\nu}\right]+N_0\nu\bar{C}_{\nu}=$$

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On solving fundamental ...

$$= \sum_{m=1}^{\alpha,\beta} (A_m - B_m \varrho_1^{2m})(\nu + m)\bar{C}_{\nu+m} + \sum_{m=1}^{\alpha,\beta} (A_{-m} - B_{-m}\varrho_1^{-2m})(\nu - m)\bar{C}_{\nu-m}; \quad (\nu = 1, \ldots) \quad (17)$$

together with expressions

$$\psi(\zeta) = -\eta_0 \bar{\varphi}\left(\frac{1}{\zeta}\right) - \frac{\bar{\omega}\left(\frac{1}{\zeta}\right)}{\omega'(\zeta)}\varphi'(\zeta) + \bar{I}_0\left(\frac{1}{\zeta}\right) - iC_0\bar{\omega}\left(\frac{1}{\zeta}\right) + \bar{C}_0. \quad (8)$$

and $$\psi(\zeta) = -\eta_1 \bar{\varphi}\left(\frac{\varrho_1^2}{\zeta}\right) - \frac{\bar{\omega}\left(\frac{\varrho_1^2}{\zeta}\right)}{\omega'(\zeta)}\varphi'(\zeta) + \left(\frac{\varrho_1^2}{\zeta}\right) - iC_1\bar{\omega}\left(\frac{\varrho_1^2}{\zeta}\right) + C_1^{-1} \quad (9)$$

which solve the proposed problem. It must be noted that in solving the first fundamental problem it is appropriate to choose C_1' so

Card 5/7

On solving fundamental ...

that $N_0 = 0$. It remains only to determine C_0 (see Table). In the second problem $\eta_0 = \eta_1$ and $N_0 = B_0 - A_0$ is a known quantity and therefore one must refer the factors containing N_0 to the right hand sides of (16) and (17). In the mixed problem when the stresses are given on L_0 and strains on L_1 (see Table) it will be necessary to determine C_0 and $N_0 = B_0 - A_0 + a_0(\eta - 1) = C_0'$. When solving concrete problems, the necessary accuracy being known, one can take a finite number e of terms of the series for $\varphi(\xi)$. The system of equations obtained in this way can be solved without any difficulty and its solution will be unique if one puts $\mathrm{Im} a_1 = 0$ which does not affect the result. There are 1 table and 6 Soviet-bloc references.

ASSOCIATION: Hor'kovs'kyy inzhenerno-budivel'nyy instytut (Gor'kiy Institute of Civil Engineering)

SUBMITTED: December 23, 1960

Card 6/7

43336

S/044/62/000/011/054/064
A060/A000

16.3000

AUTHOR: Ugodchikov, A.G.

TITLE: On the solution of the plane problem of the theory of elasticity by electrical simulation of conformal mapping

PERIODICAL: Referativnyy zhurnal, Matematika, no. 11, 1962, 46, abstract 11V211 (Tr. Gor'kovsk. inzh.-stroit. in-ta, 1961, no. 30, 3 - 41)

TEXT: In solving harmonic and biharmonic problems of the plane theory of elasticity by methods based on the application of Cauchy-type integrals and conformal mapping, it is necessary to know the function which maps the unit circle onto the (simply connected) region occupied by the elastic medium. Here a particularly simple and effective solution of biharmonic problems is obtained (as was demonstrated by N.I. Muskhelishvili) when the mapping function is a polynomial. In 1955, the author had proposed (Ukrainskiy matematicheskiy zhurnal, 1955, v. 7, no. 2, 3) a method of approximate construction of a mapping function $\omega(\zeta)$ in the form of a polynomial. An approximating polynomial $\omega_n(\zeta)$ of degree n is constructed according to the Schwartz formula with the aid of a trigonometric in-

Card 1/2

On the solution of the plane problem of S/044/62/000/011/054/064
A060/A000

terpolation polynomial $X_n(\theta)$, coinciding at equidistant points with the real part of the requisite function. In the present work it is proven that, if the region is bounded by a rectified Jordan curve, the sequence of approximating polynomials $\omega_n(\zeta)$ converges in the mean to the mapping function, i.e., for $\rho \leq 1$

$$\lim_{n \to \infty} \int_0^{2\pi} |\omega_n(\rho e^{i\theta}) - \omega(\rho e^{i\theta})|^2 \, d\theta = 0 .$$

The method of solving problems in the theory of elasticity under the condition that the mapping function is a polynomial is illustrated upon the problem of the deflection of solid rods (the harmonic case) and on the plane problem for a simply connected region with specified concentrated forces and moments (the biharmonic case).

I.G. Aramanovich

[Abstracter's note: Complete translation]

Card 2/2

UGODCHIKOV, A.G. [Uhodchykov, A.H.]

Solution of a generalized biharmonic problem in the plane theory of elasticity for double-connected domains. Dop. AN URSR no.11: 1440-1444 '61. (MIRA 16:7)

1. Gor'kovskiy inzhenerno-stroitel'nyy institut. Predstavleno akademikom AN UkrSSR G.N.Savinym [Savin, H.M.].
(Elasticity)

UGODCHIKOV, A.G., doktor tekhn.nauk, prof.

Solution of the plane problem of the theory of elasticity with the aid of electr[illegible]ng of conformal mapping., Trudy GISI no.30:3-41 '61. (MIRA 16:9)

UGODCHIKOV, A.G. (Gor'kiy)

Calculating fitting stresses around holes in elastic media. Inzh. sbor. 31:80-85 '61. (MIRA 14:6)
(Strains and stresses)

UGODCHIKOV, A.G. (Gor'kiy); KRYLOV, A.Ya. (Gor'kiy)

Calculating stresses near inspection galleries in hydrotechnical installations. Inzh.zhur. 1 no.4:160-165 '61. (MIRA 15:4)
(Hydraulic engineering)

KEROPYAN, K.K., prof., doktor tekhn. nauk, red.; PUKHOV, G.Ye., prof., doktor tekhn. nauk, red.; UGODCHIKOV, A.G., prof., doktor tekhn. nauk, red.; SADETOV, S.Ya., dots., kand. tekhn. nauk, red.; GUNKIN, I.I., assistent, red.;CHEGOLIN,P.M.,dots.,kand. tekhn.nauk,red.(Minsk)

[Proceedings of the Inter-University Conference on Electric Modeling of Problems of Structural Mechanics, Theory of Elasticity, and Strength of Materials] Trudy Mezhvuzovskoi nauchno-tekhnicheskoi konferentsii po elektricheskomu modelirovaniiu zadach stroitel'noi mekhaniki, teorii uprugosti i soprotivleniia materialov. Pod red. K.K.Keropiana i A.G. Ugodchikova. Novocherkassk, Rostovskii inzhenerno-stroitel'nyi in-t, 1962. 176 p. (MIRA 17:4)

1. Mezhvuzovskaya nauchno-tekhnicheskaya konferentsiya po elektricheskomu modelirovaniyu zadach stroitel'noy mekhaniki, teorii uprugosti i soprotivleniya materialov. 2d, Rostov-na-Donu, 1962. 2. Rostovskiy-na-Donu inzhenerno-stroitel'nyy institut (for Keropyan, Sadetov, Gunkin). 3.Chlen-korrespondent AN Ukr.SSR i Vychislitel'nyy tsentr AN SSSR (for Pukhov). 4. Gor'kovskiy inzhenerno-stroitel'nyy institut (for Ugodchikov).

35831

24,4200

S/044/62/000/002/019/092
C111/C333

AUTHOR: Ugodchikov, A. G.

TITLE: The determination of stresses during the pressing of some round disks into a plate with variable negative allowances

PERIODICAL: Referativnyy zhurnal, Matematika, no. 2, 1962, 41, abstract 2B176. ("Inzhenernyy sb.", 1960, 27, 157-161)

TEXT: The author considers the state of stress of a plate with impressed disks; plate and disks have the same elastic properties. It is assumed that the stresses on the free boundaries of the plate and the displacement jumps at the boundaries of the plate and of the disks are known. In contrast with other papers on joining together parts by pressing, here the displacement jump is a function of the affix t of the conjugation point. It is shown that, with the aid of the analytic continuation according to D. I. Sherman, the problem can be reduced as in the case of a constant jump to the first fundamental problem of elasticity theory for the domain occupied by the bodies joined together.

[Abstracter's note: Complete translation.]

Card 1/1

S/271/63/000/003/020/049
A060/A126

AUTHOR: Ugodchikov, A.G.

TITLE: Construction of conformal mapping functions with the aid of electrical simulation. (Semi-infinite double-connected domains)

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 3, 1963, 6, abstract 3B31 (Dokl. 4-y Mezhvuz. konferentsii po primeneniyu fiz. i matem. modelirovaniya v razlichn. otraslyakh tekhn., Sb. 1, Moscow, 1962, 59 - 69)

TEXT: The precise or satisfactory approximate solution of the problem of constructing a function $z = \omega(\tau)$, which realizes the conformal mapping of a canonical domain D of the ξ plane onto a specified domain S of the z plane presents considerable mathematical difficulties. Methods for constructing mapping functions for prespecified single- and double-connected domains have been developed earlier. The author sets forth a method for constructing a function $z = \omega(\xi)$, which realizes the conformal mapping of a circular ring $\rho_1 < |\xi| < 1$ onto a specified double-connected semi-infinite domain. This problem is solved

Construction of conformal mapping functions S/271/63/000/003/020/049
A060/A126

with the aid of electrical simulation by converting that domain into a finite one. The method of finding the approximate mapping function is given. As an example the author considers the problem of constructing a function mapping the circular ring $\rho_1 \leq |\zeta| \leq 1$ onto a double-connected semi-infinite domain occupied by a scaled foundation and a dam, weakened by a cambered outlet. There are 11 references.

G. R.

[Abstracter's note: Complete translation]

Card 2/2

16.3800

39375
S/044/62/000/006/006/127
B112/B104

AUTHOR: Ugodchikov, A. G.

TITLE: Solution of the generalized biharmonic problem in the two-dimensional theory of elasticity for doubly connected domains

PERIODICAL: Referativnyy zhurnal. Matematika, no. 6, 1962, 42, abstract 6B179 (Tr. Gor'kovsk. inzh.-stroit. in-ta, no. 39, 1961, 5-15)

TEXT: Problems associated with the two-dimensional theory of elasticity for doubly connected domains that can be represented on a circular ring using a function of the form $\sum_{j=-m}^{n} c_j z^{-j}$ are considered. The right-hand sides of the boundary conditions satisfied by the complex potentials are assumed to be rational functions. (This imposes additional restrictions on the external forces.) The method of solution is similar to N. I. Muskhelishvili's well-known method for singly connected domains that can be represented on a circle with the aid of rational functions. [Abstracter's note: Complete translation.]

Card 1/1

UGODCHIKOV, A. G.

Concentration of fit stresses around holes. Probl. proch. v mashinostr. no.9:5-14 '62. (MIRA 15:10)

(Strains and stresses)

UGODCHIKOV, A. G.

Effect of technological errors on fit stresses. Probl. prochn. v mashinostr. no.9:15-24 '62. (MIRA 15:10)

(Strains and stresses)

UGODCHIKOV, A.G. (Gor'kiy)

Stressed state in butt and tee welded joints under the action of an external load. Inzh.zhur. 2 no.3:185-189 '62. (MIRA 15:8)
(Electric welding) (Strains and stresses)

UGODCHIKOV, A.G. (Gor'kiy); KUZNETSOV, A.M. (Gor'kiy)

Calculating static stresses in gear teeth. Inzh. zhur. 3 no.2:348-354 '63. (MIRA 16:6)

(Gearing)

UGODCHIKOV, A.G.

Solving problems of the torsion and flexure of composite prismatic rods. Trudy GISI no.44:60-71 '63. (MIRA 17:11)

UGODCHIKOV, A.G.; SKIPSKIY, P.S.

Calculating polygonal pipes for internal pressure. Trudy GISI no.44: 128-139 '63. (MIRA 17:11)

KRYLOV, A. YA.; KUZNETSOV, A.M.; SEREBRENNIKOVA, I.I.; UGODCHIKOV, A.G. (Gor'ky)

"On the solution of some plane problems of applied elasticity with the aid of electrical simulation of conformal mapping".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

39

B+1

L 25764-65 EWT(d) IJP(c) MLK

ACCESSION NR: AT5002505 S/0000/64/000/000/0183/0190

AUTHOR: Ugodchikov, A. G.

TITLE: The use of electrosimulation of conformal representation and Lagrange interpolatory polynomials for the construction of conformal representations of functions

SOURCE: Analogovyye metody i sredstva resheniya krayevykh zadach (Analog methods and means of solving boundary value problems); trudy Vsesoyuznogo soveshchaniya, Moskva, 1962 g. Kiev, Naukova dumka, 1964, 183-190

TOPIC TAGS: electromodel, electrosimulation, conformal mapping, interpolation, Lagrange interpolation, analog computer, boundary value problem, elasticity theory

ABSTRACT: The paper deals with a mathematical technique for transforming a certain broad class of boundary value problems. In the boundary value problems of the plane theory of elasticity, the method of conformal representation of functions is well-known. The experimental analytic technique for computing the conformal representations is assumed - that is, the values of the functions are

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ACCESSION NR: AT5002505

given experimentally and from these an analytic expression is derived. The present paper derives a simple way of obtaining the analytic expression (a certain polynomial) by means of the Lagrange [illegible] tion approximation is suitable for use in connection with an electrostimulation [illegible] for the solution of the boundary value problems of the plane theory of

ASSOCIATION: None

SUBMITTED: 03Sep64 ENCL: 00 SUB CODE: MP,MA

NO REF SOV: 004 OTHER: 001

UGODCHI[illegible] (Gor'kiy)

Calculating thermal stresses caused by two-dimensional temperature fields. Prikl.mekh. 1 no.7:1-10 '65. (MIRA 18:8)

1. Gor'kovskiy inzhenerno-stroitel'nyy institut.

L 44344-66 EWT(d)/T IJP(c) GD

ACC NR: AT6009817 SOURCE CODE: UR/0000/65/000/000/0182/0190

50

B+1

AUTHORS: Ugodchikov, A. G.; Prok, Ye. V.

ORG: none

TITLE: The construction of conformal mapping functions with the aid of Lagrangian interpolation polynomials, using an electronic computer

SOURCE: Seminar po metodam matematicheskogo modelirovaniya i teorii elektricheskikh tsepey. Matematicheskoye modelirovaniye i teoriya elektricheskikh tsepey (Mathematical modeling and the theory of electrical circuits); trudy seminara, no. 3. Kiev, Naukova dumka, 1965, 182-190

TOPIC TAGS: computer technique, computer program, computer application, analog computer, electronic computer, conformal mapping, interpolation, polynomial solution

ABSTRACT: A method has been proposed for constructing mapping functions (MF) (A. G. Ugodchikov, V. kn.: Materialy nauchnykh seminarov po teoreticheskim i prikladnym voprosam kibernetiki. K., 1963 3, 5, 3). The approximate MF expression is constructed with the help of a Lagrangian interpolation polynomial. It is applicable to singly connected and finite doubly connected regions; the MF is a polynomial. At the interpolation point the calculated coefficients of this polynomial agree with the value of the MF. Examples of the application of this method when using an

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ACC NR: AT6009817

electronic computer both with and without electric analog formulation for the selection of null approximations are discussed. The precision of the interpoint mapping can be increased by either increasing the number of terms of the interpolation polynomial or by constructing successive approximations. One technique of using the analog does not require complex instruments and gives sufficient precision without using excessive computer time. The analog formation, however, requires more time than the computation, and it is helpful to use the analytical device developed by Ugodchikov to construct the MF. The success of the mapping depends on the correct choice of the number of initial points. The use of the electric analog formulation instrument EGDA-6 is mentioned. After the initial mapping image is adjusted, the MF can be refined, and the number of terms in the polynomial can be reduced. When no analog formulation is used, the computer operation time is increased 150—300%. Orig. art. has: 4 equations and 6 figures.

SUB CODE: 12, 09/ SUBM DATE: 26Jan62/ ORIG REF: 009

ACC NR: AM6029196 Monograph UR/

Ugodchikov, Andrey Grigor'yevich

Construction of conformal transformations with the aid of electric modeling and Lagrange interpolation polynomials (Postroyeniye konformno otobrazhayushchikh funktsiy pri pomoshchi elektromodelirovaniya i interpolyatsionnykh polinomov Lagranzha) Kiev, Naukova dumka. 1966. 75 p. illus., biblio. (At head of title: Akademiya nauk Ukrainskoy SSR. Institut kibernetiki) 2200 copies printed.

TOPIC TAGS: conformal mapping, electric modeling, Lagrange interpolation, polynomial, approximate mapping, approximation, iteration

PURPOSE AND COVERAGE: This book deals with the problem of constructing functions that realize approximate conformal mapping of a circle (circular) onto a given simply connected (doubly connected) region. The desired function is sought for finite regions in the form of polynomials. The initial data for obtaining the coefficients of the polynomial are found by electric modeling of conformal mappings. Modeling techniques, the procedure for analytically determining the coefficients of the desired functions, and the use of electronic digital computers to carry out the required computations are discussed. The book is intended for scientists and engineers who are concerned with solving engineering problems by methods of the theory of functions of a complex variable.

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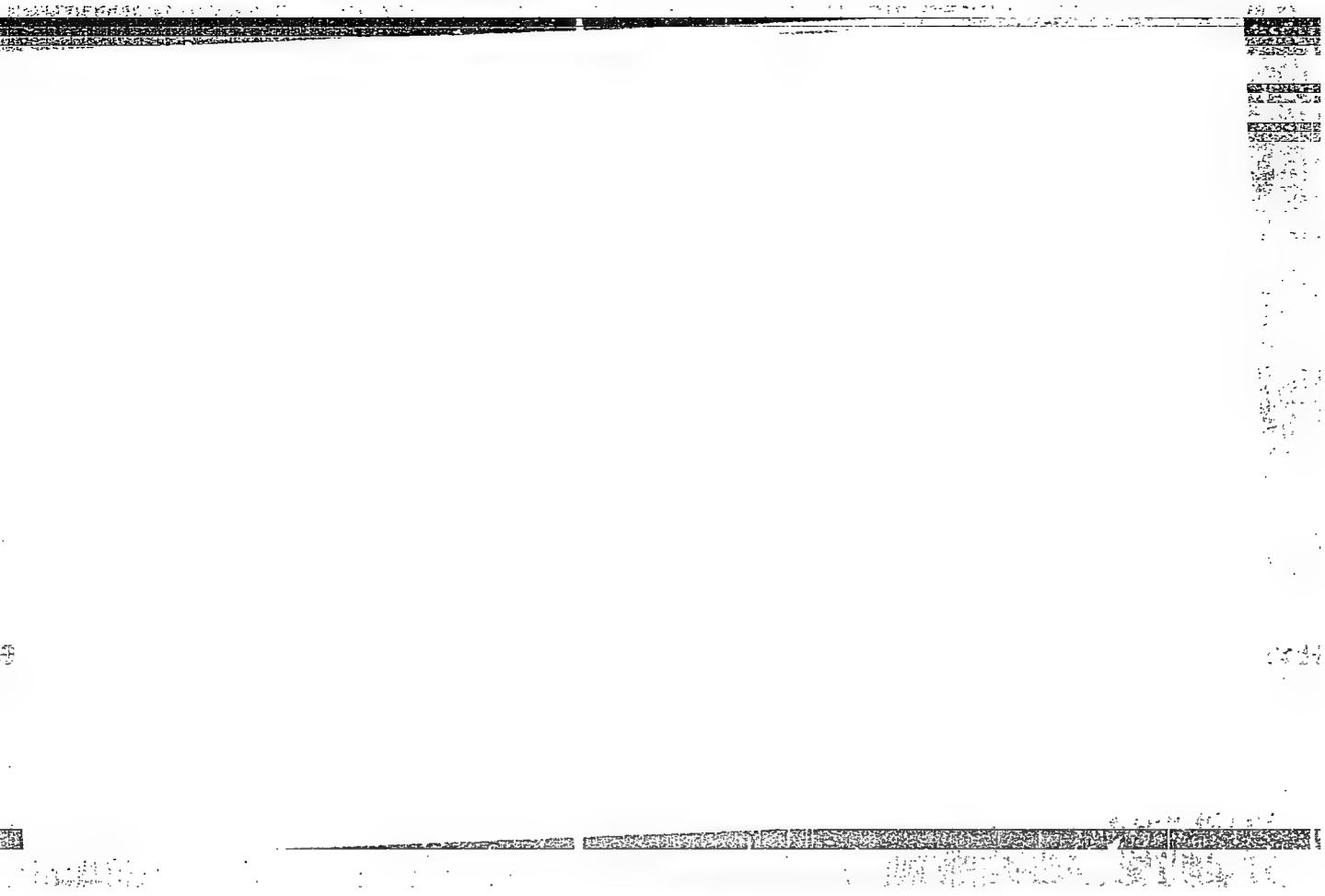
ACC NR: AM6029196

SUB CODE: 12/ SUBM DATE: 11Jan66/ ORIG REF: 067/ OTH REF: 009/

Card 2/2



APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001857820016-3"

substances as functions of the initial energy, per single collision, for

LIZUNOV, V.A., inzh; UGODIN, Ye.G., inzh.

Methods and examples of establishing advanced time norms for mechanized loading and unloading of liquid petroleum products from cars. Trudy TSNII MPS no.151:203-240 '58. (MIRA 11:12)
(Loading and unloading) (Petroleum products--Transportation)

UGODIN, Ye.G., inzh.

Mechanization of the loading of packaged piece freight into roofed freight cars. Mekh.i avtom.proizv. 14 no.11:23-24 N '60.
(MIRA 13:11)

(Railroads--Freight)

GOLUBKOV, Vladimir Vladimirovich; KOGAN, L.A., kand.tekhn.nauk, retsenzent; UGODIN, Ye.G., inzh., red.; VERINA, G.P., tekhn.red.

[Over-all mechanization of loading and unloading operations at freight stations] Kompleksnaia mekhanizatsiia pogruzochno-razgruzochnykh rabot na gruzovykh stantsiiakh. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1961. 61 p. (MIRA 14:12)

(Railroads--Freight)
(Loading and unloading--Equipment and supplies)

UGODIN, Ye.G., inzh.

Mechanization of operations for the unloading of bulk and lump freight from boxcars. Zhel. dor. transp. 43 no. 1:58-60 Ja '61. (MIRA 14:4)

(Loading and unloading)

YEROFEYEV, Ye.V.; KOGAN, A.N.; STEPANOV, N.A.; TIKHONCHUK, Yu.N.; UGODIN, Ye.G.

Improving the organization of mineral fertilizer transportation by collective and state farms. Zhel.dor.transp. 44 no.7:18-21 Jl '62. (MIRA 15:8)

(Fertilizers and manures—Transportation)

LEPSKIY, A.V.; BORODULINA, Ye.V.; UGODIN, Ye.G.; PLYUKHIN, D.S.; MOROZOV, E.N.; DRUGAL', S.A.; KHARITONOV, Ye.V.; RAMODIN, V.N.; CHUPRIKOV, S.A.

[Over-all mechanization and automation of the unloading of bulk freight.] Kompleksnaia mekhanizatsiia i avtomatizatsiia vygruzki sypuchikh gruzov. Moskva, Transport, 1964. 182p. (Trudy Vsesoiuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta, no.285). (MIRA 17:12)

L 07112-67 EWT(l)/EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6029106 SOURCE CODE: UR/0048/66/030/006/0949/0956

AUTHOR: Nikolayev,V.I.; Dubovtsev,I.A.; Ugodnikov,G.G.; Yakimov,S.S.;

ORG: none

TITLE: Investigation of the Mossbauer effect on Fe^{57} nuclei in nickel ferrite-chromite with a compensation point / Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 949-956

TOPIC TAGS: ferrite, Mossbauer effect, Mossbauer spectrum, spontaneous magnetization, magnetic effect, iron

ABSTRACT: In view of the paucity of studies of the Mossbauer effect in ferrites, the present investigation was undertaken with a view to determining the temperature dependence of the Mossbauer spectra characterizing the absorption of 14.4 keV gamma rays by Fe^{57} nuclei in a ferrite with a compensation point. The investigated material was nickel ferrite-chromite: $NiFe_{2-x}Cr_xO_4$ with x equal to 1.0 and 0.9; both substances have the inverse spinel structure. Both the Curie point and the compensation point of the two compositions lie above room temperature. The two specimens were synthesized by the so-called "dry" procedure of the corresponding oxides (high purity grade). All the measurements were carried out with a stationary absorber. A series of curves

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L 07112-67

ACC NR: AP6029106

in one figure gives the Mossbauer spectra of the Fe^{57} nuclei in the $NiFeCrO_4$ lattice at different temperatures. Also presented in graphic form are the results of studies of the temperature dependences of the spontaneous magnetization and the effective field at the Fe^{57} nuclei and of the magnetocaloric effect in the studied ferrite. Another figure shows the temperature dependence of the isomer shift. Detail graphs give the temperature variations of the spontaneous magnetization and the effective field at the iron nuclei in the proximity of the Curie point for both the investigated compositions. The character of the phase transition connoted by the data is discussed in general terms; the data are inadequate to identify the exact mechanism involved.

In conclusion, the authors are grateful to I.K.Kikoin for support and his interest in the work and to Yu.M.Kagan for useful discussions. Thanks are also expressed to A.N.Goryaga for advice on preparation of the ferrites, and to P.K.Pronin, Ye.Ye. Kislyakov, and N.N.Kuznetsov for assistance in designing and adjusting the setups.

Orig. art. has: 2 formulas, 1 table and 5 figures.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 003 OTH REF: 005

Card 2/2

UGODTSIKOV, A.G.

report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '60.

268. L. M. Stavraki (Kuibishev): Strain design and general stability of structures.

269. L. N. Stavrayi (Kuibishev): A general method of solving non-linear problems of structural mechanics.

270. R. D. Stepanov (Moscow): A contribution to the non-linear problem of plate flutter.

271. L. G. Stepanskii, E. P. Unksov (Moscow): On the use of variational principles for the approximate solution of some problems of plastic equilibrium.

272. A. I. Strelbitskaia (Kiev): Experimental investigation of the oblique bending of steel beams beyond the elastic limit.

273. A. S. Streganov (Moscow): Strength and visco-plastic flow of soils.

274. G. I. Ter-Stepanian (Erevan): The relation between pore pressure and rate of creep of slopes.

275. L. A. Tolokonnikov (Tula): Finite plastic strains of non-linearly deformed bodies.

276. A. D. Tomlenov (Moscow): Piercing of metals by a spherical punch considering contact friction.

277. Ia. L. Turchinskaia (Moscow): An asymptotic method of designing flexible blades of variable pitch at high speeds of rotation.

278. B. V. Tomas (Moscow): Application of similarity methods to the analysis of the flow of rubber compounds.

279. A. A. Trapeznikov, T. G. Shalopalkina (Moscow): Dependence of the maximum elastic and discontinuous strains of aluminum-naphtenate gels on strain rates.

280. S. A. Tumarkin (Moscow): An asymptotic method for the design of toroidal shells.

281. V. K. Turkin (Moscow): Some problems of soil dynamics.

282. N. V. Tiabin (Kazan): The flow in the boundary layer of an elastic, visco-plastic medium.

283. A. G. Ugodtsikov (Gorkii): Some problems concerning the analysis of stresses in shrink fits.

284. B. V. Uzhik (Moscow): On strength and rupture criteria for metals in the presence of stress concentrations.

285. I. I. Ulitskii (Kiev): Some problems of non-linear creep.

286. A. A. Umanskii (Moscow): Analogy and model methods in problems of structural mechanics concerning bars and thin-walled structures.

287. M. T. Urazbaev (Tashkent): The problem of seismic strength of fluid supported hydraulic structures.

288. Ia. S. Ufliand (Leningrad): Application of integral transformations to the solution of some problems concerning an elastic wedge.

289. Ia. S. Fadeeva (Moscow): Deformations of plastic clays in moulding.

290. I. V. Fadeev (Moscow): Elastic-plastic equilibrium of an acute granular wedge.

291. M. L. Faldman (Dnepropetrovsk): Stability and vibrations of orthotropic plates of variable thickness.

292. A. P. Filippov (Kharkov): Extensional vibrations of turbine discs.

293. M. M. Filonenko-Borodich (Moscow): On the possibility of generalizing the Mohr and Huber-Mises-Hencky theories of rupture.

294. B. P. Fleishman (Lvov): Some problems concerning the bending of plates and shells with stiffeners.

295. L. M. Flitman (Moscow): On the impact of a wave on a heavy rigid sphere embedded in an elastic medium.

296. V. A. Florin (Leningrad): Some problems concerning rock formations of hydraulic structures.

297. V. A. Florin (Leningrad): Present state and problems of soil mechanics.

298. V. A. Florin (Leningrad): Flow conditions for saturated sands.

299. N. V. Florina (Leningrad): Experimental study of real and apparent friction in vibrating soils.

300. B. N. Fradlin, S. N. Shakhnovskii (Kiev): On the construction of Green's functions for the equilibrium problem of shallow shells.

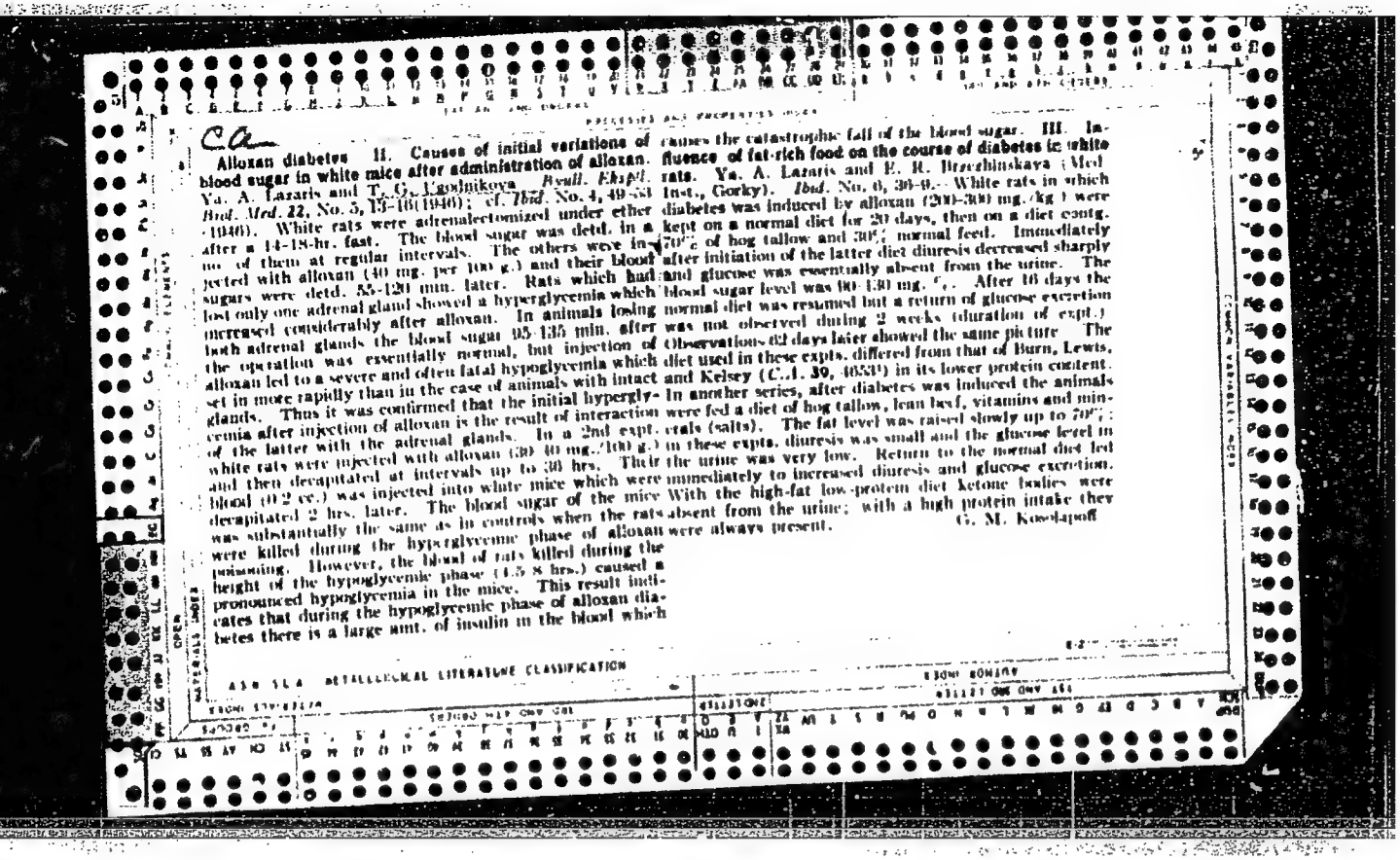
301. S. S. Freifeld (Kharkov): Further development of the initial rheological equation.

302. V. M. Frolov (Moscow): Temperature stresses in cantilever plates and their effect on stiffness.

UGOL, N.B.

Attempt at a pathophysiological nalysis of senile dementia. (MIRA 11:8)
Vop.psikh. i nevr. no.1:15-26 '57

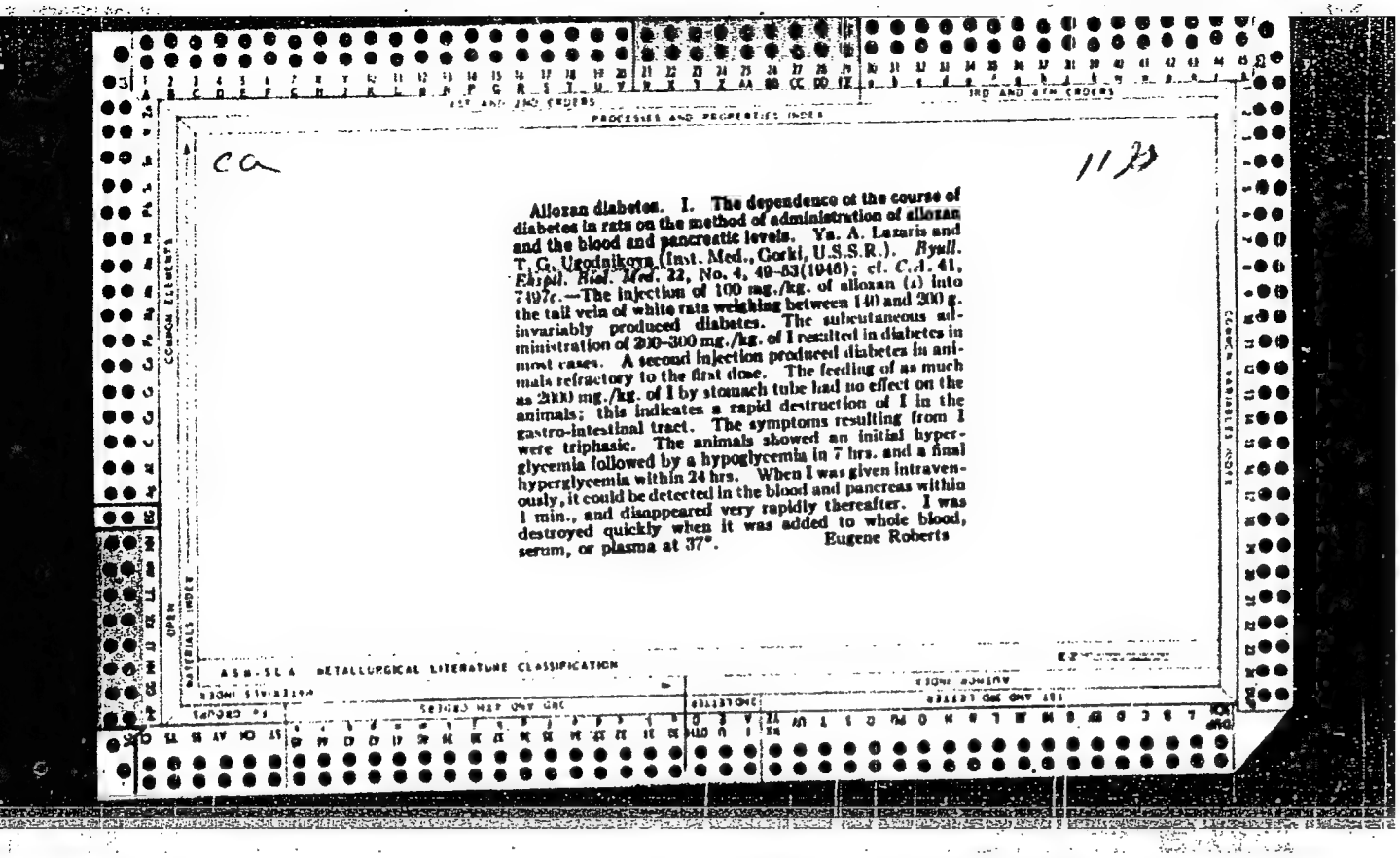
1. Iz Leningradskogo psikhonevrologicheskoy bol'nitsy im. I.M. Balinskogo.
(PSYCHOSES)



CA

Alloxan diabetes. II. Causes of initial variations of blood sugar in white mice after administration of alloxan. Ya. A. Lazaris and T. G. Kogolnikova. *Byull. Eksptl. Biol. Med.* 22, No. 5, 15–18 (1946); cf. *Ibid.* No. 4, 49–53 (1946). White rats were adrenalectomized under ether after a 14–18-hr. fast. The blood sugar was detd. in a no. of them at regular intervals. The others were injected with alloxan (40 mg. per 100 g.) and their blood sugars were detd. 55–120 min. later. Rats which had lost only one adrenal gland showed a hyperglycemia which increased considerably after alloxan. In animals losing both adrenal glands the blood sugar 95–135 min. after the operation was essentially normal, but injection of alloxan led to a severe and often fatal hypoglycemia which set in more rapidly than in the case of animals with intact glands. Thus it was confirmed that the initial hyperglycemia after injection of alloxan is the result of interaction of the latter with the adrenal glands. In a 2nd expt. white rats were injected with alloxan (30–40 mg./100 g.) and then decapitated at intervals up to 30 hrs. Their blood (0.2 cc.) was injected into white mice which were decapitated 2 hrs. later. The blood sugar of the mice was substantially the same as in controls when the rats were killed during the hyperglycemic phase of alloxan poisoning. However, the blood of rats killed during the height of the hypoglycemic phase (4.5–8 hrs.) caused a pronounced hypoglycemia in the mice. This result indicates that during the hypoglycemic phase of alloxan diabetes there is a large amt. of insulin in the blood which causes the catastrophic fall of the blood sugar. III. **Influence of fat-rich food on the course of diabetes in white rats.** Ya. A. Lazaris and E. R. Brzezhinskaya (Med Inst., Gorky). *Ibid.* No. 6, 30–4.—White rats in which diabetes was induced by alloxan (200–300 mg./kg.) were kept on a normal diet for 20 days, then on a diet contg. 70% of hog tallow and 30% normal feed. Immediately after initiation of the latter diet diuresis decreased sharply and glucose was essentially absent from the urine. The blood sugar level was 90–130 mg. %. After 16 days the normal diet was resumed but a return of glucose excretion was not observed during 2 weeks (duration of expt.) Observations 62 days later showed the same picture. The diet used in these expts. differed from that of Burn, Lewis, and Kelsey (*C.A.* **39**, 4633[1]) in its lower protein content. In another series, after diabetes was induced the animals were fed a diet of hog tallow, lean beef, vitamins and minerals (salts). The fat level was raised slowly up to 70%; in these expts. diuresis was small and the glucose level in the urine was very low. Return to the normal diet led immediately to increased diuresis and glucose excretion. With the high-fat low-protein diet ketone bodies were absent from the urine; with a high protein intake they were always present.

G. M. Kosolapoff



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11 B

Alloxan diabetes. I. The dependence of the course of diabetes in rats on the method of administration of alloxan and the blood and pancreatic levels. Ya. A. Lazaris and T. G. Ugodnikova (Inst. Med., Gorki, U.S.S.R.). *Byull. Eksptl. Biol. Med.* 22, No. 4, 49–53(1946); cf. *C.A.* 41, 7497*c*.—The injection of 100 mg./kg. of alloxan (I) into the tail vein of white rats weighing between 140 and 200 g. invariably produced diabetes. The subcutaneous administration of 200–300 mg./kg. of I resulted in diabetes in most cases. A second injection produced diabetes in animals refractory to the first dose. The feeding of as much as 2000 mg./kg. of I by stomach tube had no effect on the animals; this indicates a rapid destruction of I in the gastro-intestinal tract. The symptoms resulting from I were triphasic. The animals showed an initial hyperglycemia followed by a hypoglycemia in 7 hrs. and a final hyperglycemia within 24 hrs. When I was given intravenously, it could be detected in the blood and pancreas within 1 min., and disappeared very rapidly thereafter. I was destroyed quickly when it was added to whole blood, serum, or plasma at 37°. Eugene Roberts

UGOLEV, A.M.

USSR/Medicine - Surgery

FD-2567

Card 1/1 Pub. 17-20/23

Author : Ugolev, A. M.

Title : Towards the technique of forming the arch of an isolated stomach

Periodical : Byul. eksp. biol. i med. 5, 71-72, May 1955

Abstract : Describes a modification in the procedure for forming a Pavlov's stomach, this modification simplifying and facilitating incision of the mucous membrane in the area of the future septum between the large and the miniature stomach. Sketches. Eleven references, all USSR (6 since 1940).

Institution : Chair of Normal Physiology (Head - Prof A. D. Slonim) of the Leningrad Medical Stomatology Institute (Director - Prof. R. I. Gavrilov)

Submitted : December 2, 1954 by V. N. Chernigovskiy, Member of the Academy of Medical Sciences USSR

FD-3397

USSR/Biology - Physiology

Card 1/1 Pub. 17-21/22

Author : Ugolev, A. M.

Title : Operation to produce a salivary fistula in small animals

Periodical : Byul. eksp. biol. i med. 8, 76-78, Aug 1955

Abstract : After an introduction on Pavlov's methods and teachings, author describes his own method by which to produce fistulas of the salivary, parotid, sublingual, and submaxillary glands in small animals. No references. Sketches.

Institution : Chair of Normal Physiology (Head: Prof A. D. Slonim), Leningrad Medical Stomatological Institute (Dir. Prof R. I. Gavrilov)

Submitted : 15 Oct 1954

SOLOPAYEV, B.P.; UGOLEV, A.M.

Fistula of hollow organs and some tracts in small animals. Biul. eksp.biol. i med. 41 no.3:79-80 Mr '56. (MLRA 9:7)

1. Iz laboratorii rosta i razvitiya (zav.-prof. M.A.Vorontsova) Instituta eksperimental'noy biologii (dir.-prof. I.N.Mayskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR N.N.Zhukovym-Verezhnikovym.

(FISTULA, exper.
surg. technic in small animals)

UGOLEV, A.M.

Study of salivation in rodents; principal secretion of the parotids in guinea pigs. Dokl.AN SSSR 107 no.5:765-767 Ap '56. (MLRA 9:8)

1. Kalininskiy gosudarstvennyy meditsinskiy institut. Predstavleno akademikom K.M. Bykovym.
(PAROTID GLANDS)

UGOLEV, A.M.

V-4

USSR/Human and Animal Physiology - Circulation.

Abs Jour : Ref Zhur - Biol., No 2, 1958, 8614

Author : N.I. Lukshina, A.M. Ugolev

Inst : -

Title : Reflex Effects of the Mechanoreceptors of the Heart on Vascular Tone

Orig Pub : Byul. eksperim. biol. i meditsiny, 1957, No 1, supplement 6-10

Abstract : A Straub cannula was introduced into the atrium or ventricle of a frog's heart; at the same time the vascular system was perfused at constant pressure through the aorta and the number of drops flowing through the anterior abdominal vein was recorded. Increasing the pressure in the heart produced a considerable reduction in the amount of issuing fluid. In animals in which the central nervous system is destroyed, and also after transection of both the vagus and sympathetic trunks, reflex constriction of

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UGOLEV, A.M.

Isolated pouch on the anterior gastric wall [with summary in English]. Biul.eksp.biol. i med. 44 no.7:108-112 Jl '57. (MIRA 10:12)

1. Iz laboratorii obshchey fiziologii Instituta normal'noy i patologicheskoy fiziologii AMN SSSR (zav. laboratoriyey i direktor instituta deystvitel'nyy chlen AMN SSSR prof. V.N.Chernigovskiy), Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR prof. V.N.Chernigovskim.
(STOMACH, surgery,
isolated pouch on anterior wall (Rus))

UGOLEV, A.M.

UGOLEV, A.M.

Analysis of the mechanisms determining the adaptation of properties of gastric juice to food characteristics [with summary in English]. Biul.eksp.biol. i med. 44 no.10:29-33 O '57. (MIRA 11:2)

1. Iz laboratorii obshchey fiziologii (zav. - deystvitel'nyy chlen AMN SSSR V.N.Chernigovskiy) Instituta normal'noy i patologicheskoy fiziologii (dir. - deystvitel'nyy chlen AMN SSSR V.N.Chernigovskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.N.Chernigovskim.

(FOOD, effects,
on gastric juice content in dogs (Rus))
(GASTRIC JUICE,
composition, eff. of food in dogs (Rus))

PA - 2946

AUTHOR UGOLEV A.M.

TITLE Adaptive Properties of Gastric Juice -
(Adaptivnyy svoystva zheludochnogo soka.- Russian)

PERIODICAL Doklady Akademii Nauk SSSR 1957, Vol 113, Nr 1, pp 230-232
(USSR).

Received: 6/1957 Reviewed: 7/1957

ABSTRACT Basis treatises on digestion lack data on the adaptive properties of gastric juice which are likely to appear in form of a juice in a dissimilar cleavage of various albumin substrata in vitro which was separated for different kinds of food. The digestion of vegetable and animal albumin by gastric juice from an isolated ventricle of a dog was studied. The gastric juice was caused by various kinds of food. The innervation of the ventricle was conserved (our method). Already the first experiments showed that the cleavage of various albumin substrata occurs with varying degrees of difficulty. The juice separated on the occasion of the digestion of meat cleaves animal albumins more intensively, while the juice caused by bread is more active on vegetable albumins.
Results show that the fact of the secretion of gastric juice itself and the purely quantitative characteristics of its digesting properties are insufficient for the evaluation of the

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Adaptive Properties of Gastric Juice.

processes investigated. It would be useful to introduce a specification system that reflec at least partly the adaptive properties of gastric juice. This is all the more necessary as decrease of activity for one kind of food does not mean a weakening of its fermentative properties but shows adaptive changes by a change of food. At the same time, its activity towards other substrata increases. In the case of the digestion of animal albumins we speak of a zoolytic activity (or zootropy) and in the case of the digestion of vegetable albumin of phytolytic activity (or phytotropy). The relation between phytolytic and zoolytic activity (index Ph/Z) characterizes the quality of juice in the case of similar experimental conditions with tolerable accuracy. Should the index be below one, this would indicate adaptation of the juice to the digestion of animal food, whilst an index of more than 1 would mean adaption vegetable food. (1 Illustration and 6 citations from publications)

ASSOCIATION: Institute for Normal and Phatological Physiology of the Academy of Medical Science of the USSR. (Institut normal'noy i patologicheskoy fiziologii Akademii meditsinskikh nauk SSSR)

PRESENTED By: A.D. SPERANSKIY, Member of Academy.

SUBMITTED: 24.11. 1956.

AVAILABLE: Library of Congress.

Ugolev, A.M.

PA - 3067

AUTHOR UGOLEV A.M.

TITLE On the Specificity of Blood Amylase in Cats and Rabbits
(O vidovoy spetsifichnosti amilazy krovi koshek i krolikov -Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 2, pp 478-480 (U.S.S.R.)
Received 6/1957 Reviewed 7/1957

ABSTRACT The pancreas is doubtless an organ which performs almost the most important work in the chemical decomposition of nutritious matter, It is no surprise then that the question of its adaption in qualitatively different foods occupies a central position in nutritional physiology. The capacity of adaption of the pancreas became very controversial in the last decades. The current view today is that the adaptation of the intestinal glands to the quality of the food decreases in proportion to the distance from the mouth: it is strongest in the stomach glands and weakest pancreas. At the same time evidence was accumulated for the justification of Pavlov's original standpoint of the great adaptive possibilities of the pancreas. The author maintains that the choice of methodic procedure is here very important, for negative results have till now have been more often obtained with dogs and cats, whereas rats positive ones have been found. Furthermore negative results are mostly obtained in experiments with pancreatic juice and positive ones above all in the studies made with pancreas and blood extracts. In the article here summarized, the special form of the adaption of the pancreas to the food quality is studied. In an earlier work the author demonstrated that the stomach juices are able to adapt not only quantitavely but also qualitatively to

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On the Specificity of Blood Amylase in Cats and Rabbits PA - 3067

various kinds of albumen. The question now arises if other intestinal glands also have the same power and if it is effective with other animal and vegetable foods besides albumen. Further the relation of the activity of pancreatic amylase of different animalsis fully discussed according to their power of decomposition with polysaccharides of animal(glycogens) or plant(starches) extraction. For this purpose blood amylase is picked since it is known to be of pancreatic origin. The experiments show that the pancreatic amylase of cats decomposes starches and glycogens about equally well. With the rabbit starches are better than glycogens. The spectrum of the specific activity of amylase varies very widely within an animal specie. Thus these activities are the same in some cats, while with others phytolytic activity predominates. And with still others zoolytic activity prevails. The picture obtained stands in good correlation to the nourishment type of cats and rabbits. This allows the supposition of specific adaptation of the fermenting systems of the pancreas based on the type of food. The individual variations give grounds for the belief that the systems which realize the synthesis of the amylase in the pancreas are sufficiently delicate and adequate for the adaptation to the particular variaties of foods.(1 table, 12 references)

ASSOCIATION Institute for Normal and Pathological Physiology of the Academy of Medical Sciences of the U.S.S.R.
PRESENTED BY
SUBMITTED 24.11.1956
AVAILABLE Library of Congress
Card 2/2

UGOLEV, A.M., Doc Med Sci—(diss) "Adjustment of digestive glands to the quality of food." Mos, 1958. 27 pp (Acad Med Sci USSR), 200 copies

List of author's works at end of text (10 titles)